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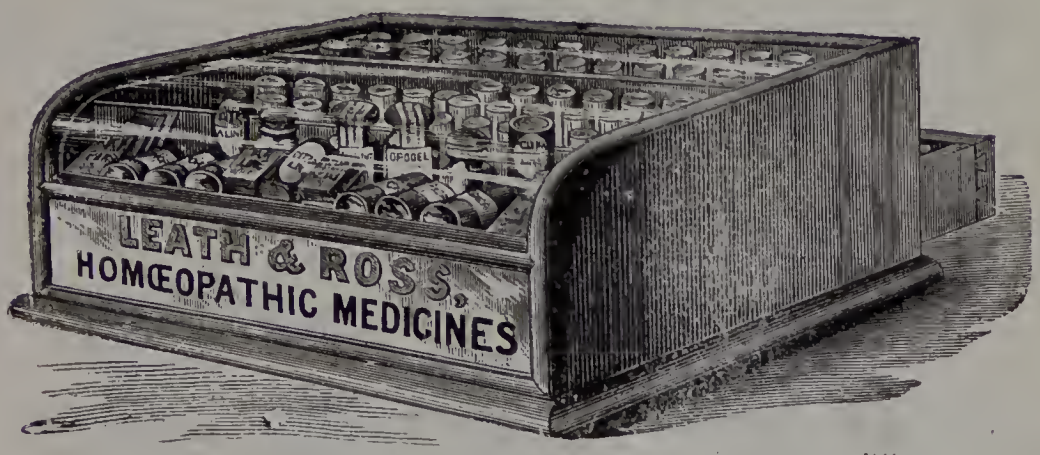

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Aloes Barb. | Pulv. Ext. Glycyrrh.
Saponis Pulv. | Theriaca, āā ..... 1 gr.

Aloes and Nux Vomica—
Aloes Soc. ..... 1½ gr. | Ext. Nucis Vom. .... ½ gr.

Aloin ..... 1/10, ¼, ½, 1 gr.

Aloin, various combinations.

Anti-Dyspepsia (Fothergill)—
Strychninæ ..... 1/30 gr. | Pulv. Ipecac. ..... 2-3 gr.
Pulv. Piper Nig. ..... 1½ gr. | Ext. Gent. ..... 1 gr.

Arsenious Acid ..... 1-20, 1-50 gr.

Asafœtida, U.S. and B.P. ..... 5 gr.

Atropine ..... 1-100, 1-300 gr.

Blue Pill, B.P. ..... 1, 2, 3, 5 gr.

Blue Pill, with Colocynth and Hyoscyam. ..... 5 gr.

Calcium Sulphide ..... 1-10, 1-4, 1-2, 1 gr.

Calomel, Colocyn., and Hyosc. ..... 5 gr.

Calomel Co., B.P. ..... 5 gr.

Camphor and Hyoscyam ..... 2 gr.
Camphoræ. | Ext. Hyoscy., āā ..... 1 gr.

Cannabis Indica ..... 1-4, 1-2 gr.

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Cathartic Comp., U.S.P.
Ext. Jalap ..... 1 gr. | Hyd. Subchlor. ..... 1 gr.
Ext. Coloc. Co. .... 1 1-3 gr. | Gamboge ..... 1-4 gr.
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Corrosive Sublimate ..... 1-30, 1-20, 1-10 gr.

Croton Oil ..... 1-2 gr.

Diuretic—
Ext. Buchu, Potass. Nitrat. ..... 1 gr.
Scillæ Pulv. ..... 1-2 gr.

Emmenagogue—
Ferr. Sulph. Exsic. ..... 1 1-2 gr.
Thus. American ..... 1 1-2 gr.
Aloes Socot. ..... 1-2 gr.

Ergotin ..... 3 gr.
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the liquid preparations.

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Ipecac. Co. ..... 5 gr.

Ipecac. and Squill, B.P. ..... 5 gr.

Iron Pill, B.P. Add. ..... 3, 5 gr.

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Iron reduced by Hydrogen (Quevenne) ..... 1, 4 gr.

Iron and Quinine Citrate ..... 2 gr.

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Res. Podoph. | Ext. Coloc. Co. ..... 1 gr.
Ext. Hyoscy. | Jalapæ
Ext. Tarax, āā ..... 1-4 gr. | Res. Leptand. āā .... 1-2 gr.
Ol. Menth. Pip.

Mercury, Biniodide ..... 1-16 gr.

Mercury, Proto-iodide ..... 1-20, 1-16, 1-8, 1-4 gr.
N.B.—Made from the absolutely pure *yellow* impalpable powder, free from mercury and from biniodide.
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Mercury with Chalk ..... 1 gr.

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Opium and Camphor ..... 1 gr.
Opii Pulv. ..... 1 gr. | Camphoræ ..... 2 gr.

Pepsin, Pure ..... 1 gr.

Phosphorus ..... 1-100, 1-50, 1-30 gr.
N.B.—In no kind of Pill are the advantages of the "McK. & R." method better exemplified or more in request. No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.

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Phosphor. Pur. .... 1-50 gr. | Ferr. Reduct. ..... 2 gr.

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Phosphor. Pur. .... 1-100 gr. | Ferri Carb. ..... 1 gr.
Quininæ Sulph. ..... 1 gr.

Phosphorus and Nux Vomica—
Phosphor. Pur. ..... 1-50 gr. | Ext. Nucis Vom. .... 1-4 gr.

Phosphorus and Quinine—
Phosphor. Pur. ..... 1-50 gr. | Quininæ Sulph. ..... 1 gr.

Phosphorus and Valerianate of Zinc—
Phosphor. Pur. ..... 1-50 gr. | Zinci Valer. ..... 1 gr.

Picrotoxin ..... 1-80 gr.

Podophyllin ..... 1-8, 1-4, 1-2 gr.

Quinine, Bisulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.

Quinine, Sulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.

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Quininæ Sulph. .... 2-3 gr. | Ferri Reduct.
Strychn. ..... 1-30 gr. | Ext. Bellad., āā ..... 1-4 gr.

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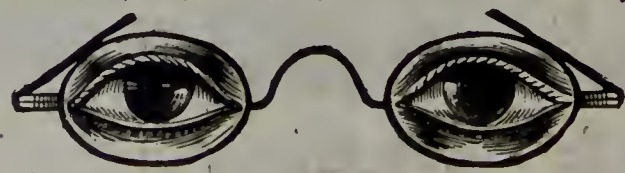

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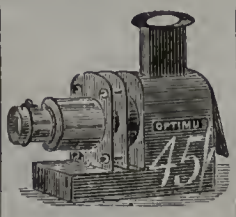

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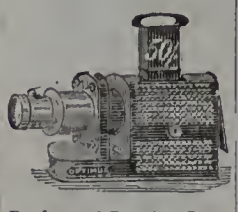

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7-in., no ,,	155 0	7-in., no ,, ...	11 0
7-in., with ,,	173 6	7-in., and ,, ...	137 9
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9-in., ,, ,,	290 0	9-in., ,, ,, ...	250 0
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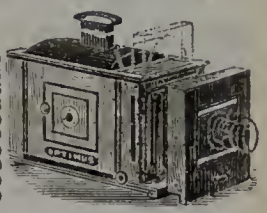
12-in., ,, ,,	580 0	12-in., ,, ,, ...	450 0



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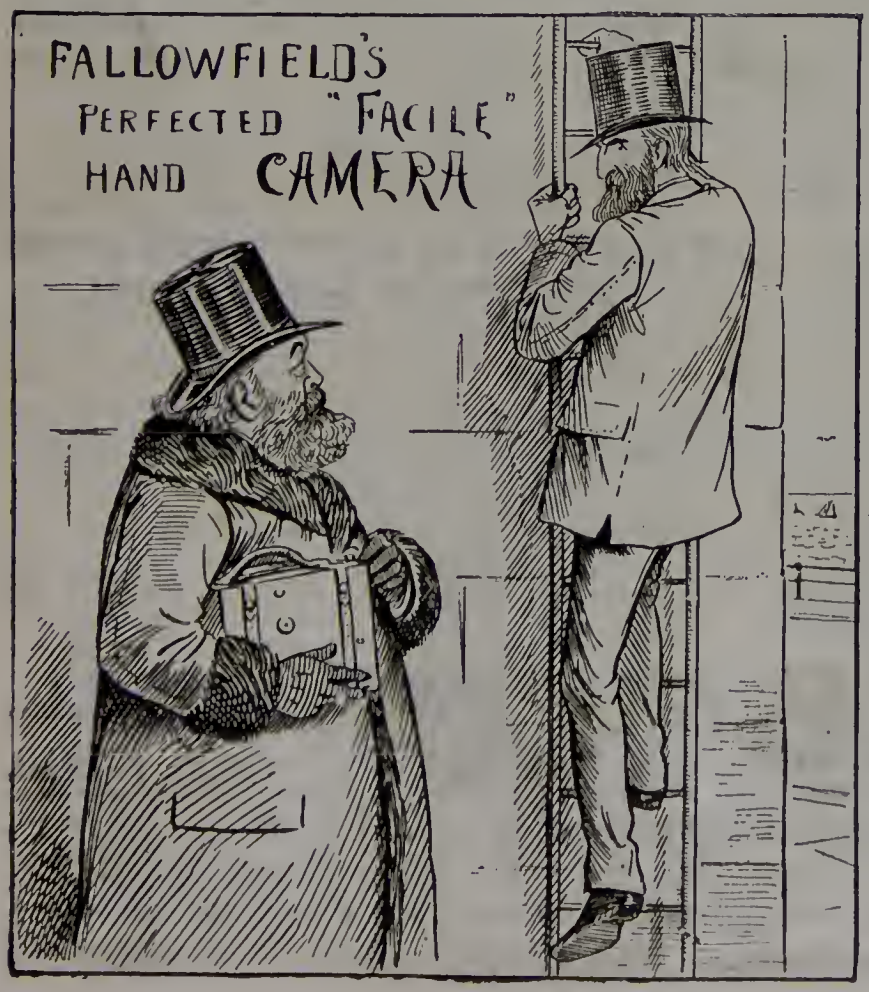

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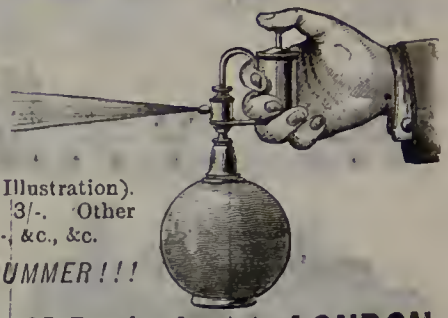

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The *Chemist and Druggist* says:—"The 'Vinolia Shaving Foam' is a superfatted substance of soft consistence, which lathers freely when applied to the beard, and by its emollient properties acts as a healing protective."

The *British and Colonial Druggist* says:—"It is delicately perfumed. Applied to the skin previously moistened with water, it gives an abundant and permanent lather, and leaves the surface, after the process of shaving, perfectly cool and free from the least irritation.

"Chemical tests, too, show it to be without the least trace of 'free alkali.' The 'Shaving Foam' is one of the most pleasant preparations of the kind which it has ever fallen to our lot to use."

VINOLIA DENTIFRICE, *English*, 2/6; *American*, 1/6.
VINOLIA SHAVING FOAM.—*In collapsible tubes*, 1/6.
VINOLIA SOAP.—*Floral*, 6*d.*; *Medical* (*Balsamic*), 8*d.*; *Toilet* (*Otto of Rose*), 10*d.*; *and Vestal*, 2/6 *per Tablet.*
VINOLIA SHAVING SOAP.—1/-, 1/6, *and* 2/6 *per Stick*: *Flat Cakes in porcelain-lined metal boxes*, 2/-.
VINOLIA CREAM.—(*For Itching, Eczema, Chaps, Chilblains, &c.*) 1/9, 3/6, *and* 6/- *each.*
VINOLIA POWDER. (*For the Toilet, Nursery, Skin Roughness, &c.*), *in Pink, White, and Cream*, 1/9, 3/6, *and* 6/- *per Box.*

BLONDEAU ET CIE., RYLAND ROAD, LONDON, N.W.

EXCHANGE COLUMN.

This Section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of ½d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of The Chemist and Druggist, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as *e.g.*, £1 10*s.* 6*d.*

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6*d.* if the amount is £3 or under; and 1*s.* if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin's Bank (Limited)."

FOR DISPOSAL.

Drugs and Chemicals.

English quinine, 100-oz. tin, 1*s.* 1½*d.* oz., cash. Mickle, Chemist, Stanley Road, Liverpool.

Formulæ.

Recipe for charming perfume; sells 2*s.* 6*d.* oz.; price 10*s.* 6*d.*; sample 4*d.* Hugh Edgson, Nottingham.

Reliable recipes, 6*d.* each; full set of 130 neatly copied in book, 7*s* 6*d.*; send for list "Chemist," Edwards, Wye, Kent.

Mixture for Tic and Toothache, never fails, has proved the only cure in hundreds of cases; Indigestion Specific, the experience of years has shown its value; Quinine and Iron Tonic, perfect in appearance and results; 2*s.* 6*d.* each recipe, nothing in the market to equal them. W. Arthur, 99 Old Road, Blackley, Manchester.

Brooks's sweet solid perfumes are best and cheapest; four sorts—"Multiflora," "Moss Roses," "Old English Lavender," "Heliotrope and Musk"; 2*d.* blocks last for years, improving by age; recipes for the set, with instructions, 3*s.* 6*d.*, or recipes, with 6 of each as sample, per 5*s.* Tom Brooks, Chemist Hornsey, London, N.

Brooks's reliable recipes have stood the test over 10 years, and every one is warranted to give satisfaction. I can strongly recommend the following 12, and will send them, post free, for 5*s.*, with full instructions:—"White Oils," inseparable, creamy, and rubs well, under 8*d.* lb.; "Hop Tonic," quickly made, brilliant, pleasant taste; "Occasional Pills" for ladies, always have desired action; "Tic Specific," cures after all others have failed; "Oatmeal and White Rose Lotion," soothes the skin, removes tan, &c.; "Quinine and Iron Tonic," no better, nicer, or cheaper made; "Peruvian Gout Pills," certain remedy, a fortune has been made by them; "Limes and Glycerine," inseparable, snow-white and inexpensive; "Liver Pills," clear the head, and make living a pleasure; "Sanitary Lotion," for nits and all uncleanness in children's heads; "Corn Cure," equalled by few, excelled by none—personal experience; "Sanitary Furniture Cream," splendid, brilliant, lasting polish, costing 9*d.* pint; any 3 for 1*s.* 6*d.*; lists free. Tom Brooks, Chemist, Hornsey, London, N.

Literature.

Offers for *The Pharmaceutical Journal* posted on Saturday morning. Knott, Chemist, Bolton.

Educational.

What offers? Balfour's "Manual Botany;" Wilson's "Inorganic Chemistry;" Roscoe's "Chemistry;" Attfield, 9th edition; Pereira's "Materia Medica," Scoresby Jackson's Cooley's "Pharmaceutical Latin Grammar;" "Selecta è Prescriptis;" Britten's "Dispenser's Vade Mecum;" *Chemist and Druggist*, 1889 and 1890; *Pharmaceutical Journal*, 1886–1890. Eyval, Chemist, East Linton, Prestonkirk.

Shop Fittings.

120 drawers, nearly new, and dispensing screen; cheap. Hugh Edgson, Chemist, Nottingham.

Counter case, black ebonized, length 45, width 14, depth 4 inches, plate-glass sides and front glass, two doors open at back, excellent condition, price 17*s.* 6*d.*, bargain. Folkestone Pharmacy, Folkestone.

Chemist's fittings for sale, great bargains.—12-foot run of drawers, 7*l.* 10*s.*; counter, plate-glass front, 12 ft. long, 12*l.* 10*s.*; also 300 shop-rounds, 7*s.* 6*d.*; and the entire fittings, sundries, &c., for sale, together or separate. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Miscellaneous.

Tricycle, Rudge's rotary, first-rate condition; price 6*l.*, cost 25*l.* 144/32.

Large mortars, iron, marble, gallon press. Wanted, 1890 *Homœo. Reviews.* Carrington, Wiscanton.

Five circular oil-vats, holding from 60 to 120 galls.; cast-iron tincture-press; 6 2-gall. upright store bottles. Key, Pontypridd.

Sem. hyoscyam. biennial, 1890 1*s.* oz., 1889 8*d.* oz.; all genuine seed; postage paid, Flemons, Chemist, Dunstable.

Thompson's patent gelatine pill-coster, first-class condition; coats from one pill to 16 dozen at once. 42 High Street, Crewe.

Several pipes pure orange wine, 2*s.* 6*d.* per gallon, or prepared with quinine to B. P., 2*s.* 9*d.*; sample 6*d.* Simpson, 307 Fairfield Road, Droylsden.

Printing-press, prints 9 by 6 inches labels, hand bills, pamphlets, woodcuts, various types, ink, &c., complete, only 50*s.* J. Eagle, 155 Pentonville Road, London, N.

Quantity Judson's dyes, 2*s.* 6*d.* doz.; 12 1*s.* Zonweiss for the teeth, 6*s.*; homœopathic medicines, 6*d.*, 2*s.* doz., 1*s.*, 4*s.* doz.; one Howie's 2-gall. patent water-filter, new, cost 22*s.*; what offer. Prust, Cardiff.

Genuine Colt's revolver, 6 shot, double action, central fire, ·450 bore, perfect and equal to new, cost 5*l.*, lowest cash price 50*s.*; a bargain. "Druggist," 2 North View Terrace, Preston.

Magic lantern, Hughes's "Pamphengos," about 150 photographic and comic slides, sheet, and stand, reading-stand, &c.; exchange or cash: particulars for stamp. Christopherson Swaffham.

Ash's 110*s.* scagliola pedestal spittoon, very handsome, 50*s.*; Gartrell's vulcaniser, gauge and regulator, 25*s.*; Verrier's continuous gum-furnace for gas, 30*s.*; large 4-celled bichromate battery, 30*s.* W. D., 276 Oxford Road, Manchester.

WANTED.

Stereo-blocks suitable for illustrating catalogue of druggists' sundries. 145/40

Cooper's dipping tub; state price, how long in use. Whelan, Rathkeale.

Nitrous-oxide gas bottle, 50 or 100 gallons; dental forceps. Moccormac, York.

Drawers, about 12-foot run. Particulars and lowest cash price to Oglesby, Chemist, Barnsley.

Forceps, cheap; also sale or exchange *Chemist and Druggist*, Jan. to Dec., 1890. Stevens, 30 Grosvenor Terrace, Fratton Road, Portsmouth.

Nickel-plated tooth-forceps, large size mortar, wall-case, dentist's chair, scales, tincture-press, pill-machine, evaporating-dish. Particulars and lowest cash prices to Oglesby, Chemist, Barnsley.

The Chemist and Druggist, 1885; *British and Colonial Druggist*, 1886 to 1890; *Analyst*, vols. I. to IV. or any; Journal of Chemical Society, a set or any volumes; Society of Chemical Industry, any volumes. G. E. Stechert, 30 Wellington Street, Strand, W.C.

THE AMERICAN AND CANADIAN ISSUE

Of "The Chemist and Druggist" will be published on May 31st, 1891.

Further particulars of the Publisher, 42 Cannon Street, London, E.C.

FRIABLE PILLS!

—UPJOHN—

Crushed to a powder under the thumb.

Crushed to a powder under the thumb.

TO CHEMISTS—

Assuming that it is conceded that Pills or Tablets MADE WITHOUT COMPRESSION or EXCIPIENT, so that the drugs employed are left in an UNCHANGEABLE, DRY, AND POWDERY FORM, are preferable to those made by methods employing either excipient or pressure, and yielding products that soon become hard and impermeable by the digestive juices, and that the porous, dry, and friable condition of the contained drug is a measure of the permeability and solubility of the pill by the digestive juices, we invite your attention to THE UPJOHN FRIABLE PILLS, which can be CRUSHED TO A POWDER under the thumb, as per illustration.

This will demonstrate clearly their friable and powdery condition, and we ask you at same time and in same manner to crush or try to crush pills or tablets of other makers.

We also invite other comparative tests, the clinical test being the one on which the decision should be largely based.

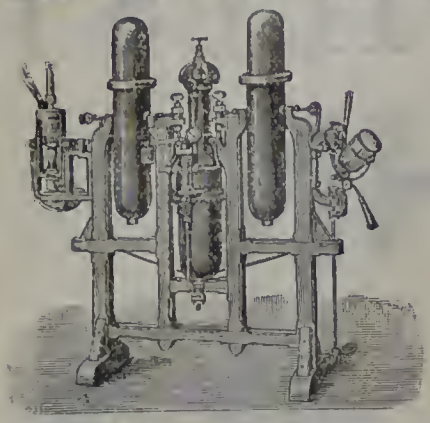
Samples and List of Formulæ, with Prices, to any Chemist's address on application to

JOHNSON & JOHNSON, LIMITED,

1 & 2 AUSTRALIAN AVENUE, LONDON, E.C.

(Sole Agents in Great Britain and Ireland for the Upjohn Pill and Granule Company.)

A. LOZÉ & CO., LD., 281 WEST DERBY ROAD, LIVERPOOL.



INDISPENSABLE TO CHEMISTS.

THE ONLY PRACTICAL SODA WATER MACHINE.

Self-working by Chemical Action. No Skilled Labour.

NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.

Produces the Purest Aërated Water made.

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

INDIA.—Machines on view at Messrs. Bertie-Smith & Co.'s, Bombay.

County Laboratory, 30 Brownlow Street, Liverpool, October, 1889.

I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way. J. CAMPBELL BROWN, D.Sc.

Chemical Laboratory, 20 Albert Gate, Manchester, 21st August, 1889.

Gentlemen,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescot Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda; the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours, C. ESTCOURT, F.I.C., F.I.

Messrs. A. Lozé, & Co., Limited. Ditton, 10th April, 1890.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly, ROBT. J. GOW, F.C.S.

SYPHONS & SELTZOGENES

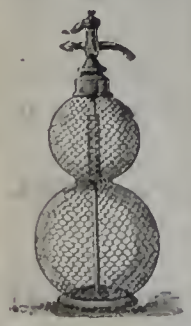
PORCELAIN LINED HEADS.

NON-METALLIC.

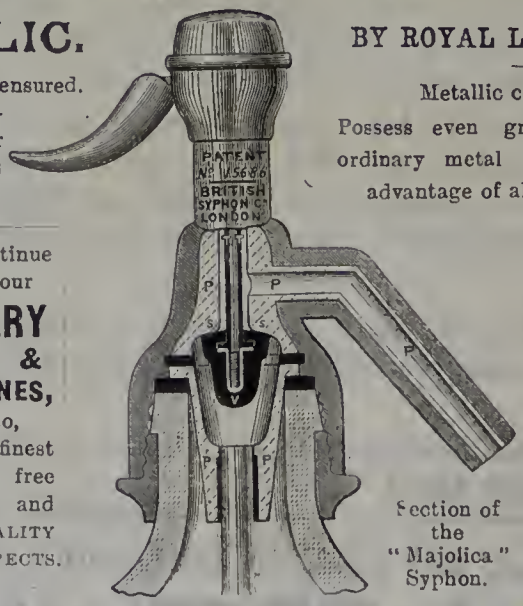
Absolute Purity of the Water ensured. Suitable for all kinds of beverages, sweetened, medicinal, or otherwise Each Syphon and Seltzogene guaranteed.

BY ROYAL LETTERS PATENT, No. 15686.

Metallic contamination utterly impossible. Possess even greater strength and durability than ordinary metal heads, combined with the immense advantage of always being clean and non-oxidisable.



We still continue to warrant our **ORDINARY SYPHONS & SELTZOGENES,** as hitherto, to be of the finest tin, entirely free from lead, and First Quality in all respects.



Section of the "Majolica" Syphon.

WRITE FOR SAMPLE AND SEE OPINION OF THE ENTIRE TRADE PRESS.

Prices and Particulars on application to the Patentees and Manufacturers.

THE BRITISH SYPHON MANUFACTURING CO.

EUGSTER & KOERTGEN, PROPRIETORS

2B GRESHAM BUILDINGS, GUILDHALL, LONDON, E.C.

WORKS—LAMBETH.

SYPHONS : SELTZOGENES

SODAWATER MACHINERY AND APPLIANCES
BRATBY & HINCHLIFFE LTD
ANCOATS 146 MINORIES
MANCHESTER LONDON EC

81 ROBERTSON STREET, GLASGOW.

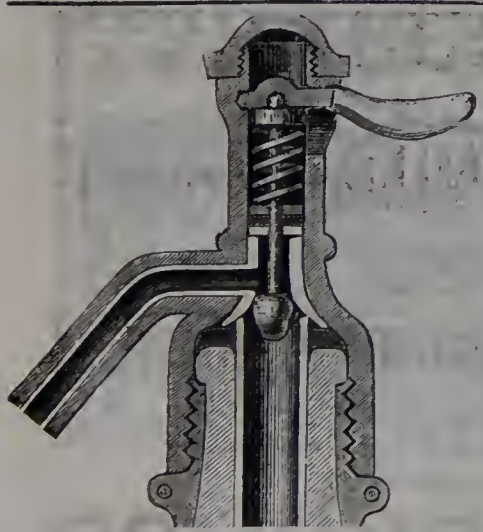
All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving our works.

PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

1	2	3	4	5	8 pint.
5/6	6/2	7/	8/	9/11	15/6 each.



Non-Metallic ! Non-Poisonous ! ! Pure Water ! ! !

IMPORTANT INVENTION IN SYPHONS.

NEW PATENT GLASS-LINED (THROUGHOUT)

SYPHON HEAD

PATENTED FOR ENGLAND AND ABROAD.

Absolutely ensuring no metallic contamination or poisoning of the drinks.

THIS PATENT GLASS-LINED SYPHON possesses the following advantages over others:—

Perfect purity of Waters. Glass Lining throughout, so is always quite clean.
Valve working on glass and in a glass tube prevents any drip from tap. Freer and fuller flow from tap.
Stronger in every part, as exterior of Syphon Head is of metal, and in appearance like ordinary Syphons, and stand wear and tear three times as long.

PRICES ONLY SLIGHTLY HIGHER FOR ALL THESE IMPORTANT IMPROVEMENTS.

Tested before being sent out to bear a pressure of 260 lbs. to the square inch.

Chemists should insist on having Aerated Waters in only Glass-lined Syphons, and so prevent any poisoning by metallic contamination. It is impossible to lay too much stress upon the importance of this matter.

Patent Glass-Lined Syphon Head put to ordinary Syphons for 20*s.* per dozen.
Sample Syphon sent carriage paid on receipt of 2*s.* 6*d.* Seltzogenes from 7*s.* 9*d.* each, 3-pint size.

MANUFACTURERS AND PATENTEES—

THE GLASS LINED SYPHON COMPANY, LIM. (NICOLE'S PATENT),

NETHERTON ROAD, WOODBERRY TOWN, LONDON, N

JEWSBURY & BROWN'S
(MANCHESTER)

SPARKLING TABLE WATERS.

UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE AERATED WATER.

LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
FRANCIS JONES, F.R.S.E., F.C.S.

On the whole, I have no hesitation in stating that your Aërated Waters are of the highest standard of purity which is practically attainable."
LOUIS SIEBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but *Citric Acid*.
"I took a sample of the water used in your manufactory, in the preparation the Aërated Waters, and found it, as was the case with the completed compounds entirely *free* from lead, copper, *or any injurious* matter whatever."
C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

CARRIAGE PAID AND ON RETURNS.

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

DE CARLE'S SOLID FRUIT JUICES.
OR
RIPE FRUIT DRINKS
(REGISTERED N° 72160.)
FROM SOUND, RIPE, SELECTED FRUIT

MAKE DELIGHTFUL

FRUIT SYRUPS

By the simple addition of Sugar and Water.

Orange, Lemon, Raspberry, Ginger, Pineapple, Lime Juice, Cherry.

Send for a 3 dozen case, which we will send, Carriage Paid, for 10/6.
Showcards, Handbills, &c.

FIND A READY SALE EVERYWHERE.

Be first! Order early! and secure your customers for the Summer demand.

Further particulars and samples from

DE CARLE & SON, MANUFACTURING CHEMISTS, **NORWICH.**

NEW ESS. LEMON, ORANGE, ETC.

IT is with great pleasure that we have again the opportunity of addressing our numerous friends on the subject of **NEW ESSENCE OF LEMON.**

It is now two years since it was our privilege to inform the trade that we had started a factory in Messina, for the manufacture of the above article. As we fully expected, our bold venture caused our competitors, both here and elsewhere, to raise an opposition against us of a most bitter, unfair, and unscrupulous character. We venture to think that nothing could have been more satisfactory to ourselves that this opposition was raised, for, instead of doing us the injury that was intended, it has been the means of drawing the attention of buyers to our article, thereby causing a considerable number of Consumers with whom we had not hitherto done business to consider the advisability of trying our quality, with the result that they have found it, as we have so emphatically stated on previous occasions, of **vast superiority over anything that has been shown on this or any other market.**

We can boast of a success in our **"W. J. B. SPECIALITY ESSENCE OF LEMON"** such as we did not dare to anticipate, our sales during the last season having far exceeded our calculations. But the point upon which we are specially elated is, consumers are more and more becoming fully acquainted with its superiority, and those who have hitherto purchased the lower qualities from us and others, after due examination, are one by one being convinced of its advantages and converted to its use. What then are its great qualifications? Simply that it is made carefully and well, from **SELECTED FRUIT ONLY AND ABSOLUTELY PURE.** Although somewhat higher in price than the qualities usually called "the best," its greater strength makes it cheaper in use, imparting, at the same time, a far superior flavour.

With regard to the ordinary commercial qualities, we claim also to be exceptionally placed; being on the spot we are enabled to take advantage of favourable markets.

Finally, we wish to mention a few words on the prospect of the crop, which, we regret, does not seem at all brilliant at present. Our friends will no doubt have seen, by our various market reports, the crop of lemons is now ascertained to be unusually limited, and the quality of the fruit being exceptionally good, a larger quantity than usual will be used for packing. Therefore, in the absence of "refuse lemons," from which the ordinary Essence is made, both Essences and Lemon Juice must be dearer as the season advances; anything like a repetition of last year's figures is out of the question.

We have received overland by Grande Vitesse a small copper, the first manufactured this season at our works, Villaggio Gazzi, Messina, and the exceptional quality of the fruit this year will enable us to offer a **PERFECT ARTICLE.**

One of our partners is in Messina as usual, superintending the manufacture.

W. J. BUSH & CO.

ARTILLERY LANE, LONDON.

TRADE MARK.

KANGRA VALLEY
INDIAN TEA GROWERS' ASSOCIATION.

French & Langdale, 14 St. Dunstan's Hill, London, E.C.

Guaranteed to be Absolutely Pure, as supplied to Europeans in India.

Packed in 1-lb., ½-lb., and ¼-lb. Metallic Air-tight Packets.

No. 1, Orange Pekoe, at 3/10 per lb. No. 2, Pekoe, at 2/10 per lb. No. 3, Pekoe Souchong, at 2/4 per lb. No. 4, Souchong, at 1/10 per lb.

Export Prices in Bond, 4d. per lb. less than above, in Chests of 50 lbs. and upwards, shipped free of charge. 50 lbs. Carriage Paid. No Travellers employed. Wholesale Terms and Tasting Samples on application.

These Teas are recommended to Chemists not only on account of their Purity, but because they are Less Astringent than other Indian Teas.

NONE GENUINE WITHOUT THE

REGISTERED TRADE MARK.

TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysis by the "LANCET," December 20th, 1890 :—

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength of vigour. The results of our analysis indicate the purity and genuineness of the samples."

PRIZE MEDAL, PARIS, 1889.

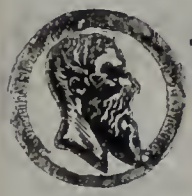
Where Vacancies exist, Agencies are appointed by

THE GREAT TOWER STREET TEA CO., LIMITED

5 JEWRY STREET, LONDON, E.C.

"MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and ¼, ½, 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS.

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.

Write for List of Specialities

"LA JOYA"

This First-Class Brand of English-Made Cigars

IS MANUFACTURED SOLELY BY

M. & R. PEACOCK,

TOBACCO, CIGAR, SNUFF, AND CIGARETTE MANUFACTURERS.

Who will be pleased to send a sample FREE to any address in the United Kingdom on application.

A box of 25 (as in margin) for 5/, or a box of 50 for 9/, on receipt of Postal Order or Stamps, carriage paid.

The only Manufacturers of the CELEBRATED "ROYAL CHARTER" TOBACCO.

WHOLESALE PRICE LISTS TO RETAILERS ON APPLICATION

542 KINGSLAND ROAD, LONDON, N.E. ESTABLISHED 1858.

PHOSPHO-CITRIC ACID

Is the only **PURE** acidifying principle that has ever been offered to the Mineral Water Trade.

Price 10d. per lb. Write for Sample.

Read the following unsolicited Testimonial.

HASSALL & CO.
King's Cross,
LONDON.

GOLD MEDAL
AWARDED AT THE INTERNATIONAL FOOD AND HEALTH EXHIBITION, LONDON, 1890,
FOR PURITY AND EXCELLENCE.

Sept. 3/90.
Oxford Street,
London, W.
(Established 1808.)

Messrs. HASSALL & CO.

Gentlemen,—
Kindly forward another 18-Gallon Cask of Phospho-Citric Acid. We congratulate you on your recent improvement, for samples of our Waters were sent to one of the first Hospitals in the West End made from yours and Citric Acids, and yours was chosen as the purest and best. We have now discarded Citric, and you are at liberty to make use of this if you think proper.

Yours faithfully,
THOMAS MAYO & CO.

AVOID TRADE APES AND THEIR WORTHLESS IMITATIONS.

HIGHEST AWARDS WHEREVER EXHIBITED.

TRADE MARK.

MILKMAID BRAND CONDENSED MILK.

FULL CREAM and FULL WEIGHT.

THE ORIGINAL SWISS MILK RECOMMENDED BY BARON LIEBIG.

Our Bonus System prevents cutting and ensures you a Nett Profit of *at least* 2/6 per case.

For full particulars apply to

THE ANGLO-SWISS CONDENSED MILK CO., 10 MARK LANE, LONDON, E.C.

NESTLE'S FOOD

AN ENTIRE DIET FOR INFANTS.

Supplies all the elements necessary for the complete nourishment and growth of the human frame.

NESTLÉ'S FOOD, being partly composed of Milk, is complete and entire in itself, and requires simply the addition of water to make it instantly ready for use. It is not merely an auxiliary, like other Infants' Foods, which require milk to be added in preparing for use.

Recommended by the highest Medical Authorities as the nearest equivalent to Mother's Milk

Pamphlet, with Medical Testimonials and Sample sufficient for a fair trial, sent post free on application to

H. NESTLÉ, 9 SNOW HILL, LONDON, E.C.

CONCENTRATED

PEPTONISED COCOA & MILK

AND CONCENTRATED

PEPTONISED MILK

(PATENT).

These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage . the assimilation of which requires no digestive effort.

SAVORY & MOORE

LONDON.

Tins 1s. 6d. and 2s. 6d. Obtainable Everywhere.

CITED BELOW ARE A FEW REPORTS ON

CAFFYN'S LIQUOR CARNIS

Which are the result of Practical Examination by those qualified to express an opinion.

"I have much pleasure in reporting that large quantities of Caffyn's Liquor Carnis have passed through my hands during the year, and I have taken frequent and full opportunity of submitting it to a thorough chemical and physical examination. My experiments enable me to state that *Caffyn's Liquor Carnis is quite a unique preparation, having a special value both as a food and medicine, which renders it far superior to ordinary meat extracts.* The points in its favour which together place it in a high position among meat foods may be thus enumerated:

"1. It is very rich in albuminoids, or flesh and tissue forming matter.

"2. It is full of soluble phosphates, or bone-forming ingredients.

"3. It contains the iron of the blood in its natural colloid form.

"4. Odour and taste are agreeable.

"5. It keeps well, maintaining its properties unaltered for an unlimited period.

"The fact should be emphasised that most meat extracts are simply tasty stimulants, often excessively salted, the chief agents of nutrition—the albumens—having been removed by heat and coagulation; whereas Liquor Carnis contains all the albumens and extracts of the meat in their natural state, and is thus a *perfect meat food.*"

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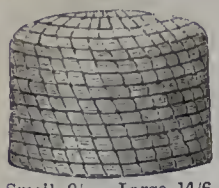

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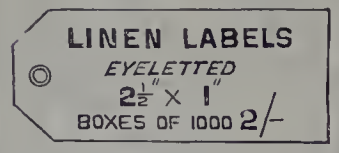

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Guber Spring
Hassall and Co.
Hay, W.
Idris and Co.
Ingram and Royle
Jewsbury and Brown
Kinmond and Co.
Mills and Co. (Bourne)
Schacht, W., and Co.
Schweppe, J., and Co.

DITTO PLANT
[See SYPHONS and ESSENCES.]
Barnett and Foster
Bratby and Hinchliffe (Ld.)
Gneret Frères
Lozé, A., and Co.
Mason, A. Newton
Tyler, Hayward, and Co

ACETIC ACID
Fuerst Bros.
Greeff, R. W., and Co.
Morris and Callard (Salts)

APPARATUS
Ohleon. A.
Orme, J., and Co. (Scientific)
Perken, Son and Rayment
Shears J., and Son
Wedgwood & Sons (Mortars)

AGENCIES ABROAD
Acard, Ed.
Australian Drug Co.
Cocking and Co. (Japan)
Felton, Grimwade and Co. (Melbourne)
Fougera and Co. (New York)
Kempthorne, Prosser & Co. N.Z
Lennon, B. G., and Co.
Levy, Jules
Peake, Allen and Co.
Prosser, Taylor and Co,
Roberts (Paris, &c.)
Rocke, Tompsitt and Co. (Melbourne)
Sharland and Co.
Soni. W. H., and Co,

ALKALOIDS
Howards and Sons (Cinchona
Smith. T. and H., and Co.

AMMONIA
May and Baker (Limited)
White, A., and Sons
Woolley, Sons and Co.

ANNATTO
Clements, S. G., & Co.
Nicholls, W., & Co.

BANDAGES
Bailey, W. H., and Son
Robinson and Sons
Schutze, F. and Co.

BAKING POWDER
Goodall. Backhouse & Co.

BEESWAX
Bowdlear, W. H., and Co,

BICARB. SODA

BISMUTH, PREP.
Hearon, Squire and Francis
Hewlett and Sons
Howards and Son
May and Baker (Limited)
Symes and Co.
Tyrer, T., and Co.
White, Alfred, and Sons

BOTTLES
Aire and Calder Bottle Co. (Ld.)
Barnett and Foster
Barrett, R. H.
Bratby and Hinchliffe (Ld.)
Breffit's (Lim.)
Evans, Sons and Co
Gilberston, H., and Sons
Hearn, E. A., and Co.
Isaacs and Co.
Johnson and Jörgonsen
Kilner Bros.
Mark, J., and Co.
Poths, H., and Co.
Shirley, A. W.
Thompson, Walters, Hole and Co. (Lim.)
Toogood, W.
Youldon, E.

BOOKS
Dr. Hargreaves, M.D.
Lewis, H. K.
Muter, Dr.

BRUSHES
Bidwell Bros., Lim.
Evans, Sons and Co.
Kent, G. B., and Sons
Moseley, David, and Sons

BUTTER COLR, &c.

BOXES
Austin and Co. (Cardboard)
Ayrton and Saunders
Chalmers, W. B.
Evans, Sons and Co.
Noakes, B., and Co.
Owen, J., Jr
Parmenter, I. W. and Co. Lim
Remus, T.
Robinson and Sons

CAMPHOR
Fordham, W. B., and Sons (Ld)
Fuerst Bros.
Howards and Sons
Keene and Ashwell (Homœopathic)
May & Baker (Ltd)

CASTOR OIL
Allen and Hanbury
Fuerst Bros.
Greeff, R. W., and Co.
Lofoden Cod Liver Oil Co.

CAPSULES (METALLIC)
Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., and Son

CAPSULES
Denonal, J. (Medicinal)
Duncan, Flockhart and Co.
Evans, Sons and Co.
Fournier, Son and Co,
Hooper, B., and Co

CASCARA SAGRADA
Duncan, Flockhart and Co.

CATALOGUE
Lynch and Co.
May, Roberts and Co.
Sanger and Son

CHALK PREPTE
Levermore, Aug., and Co.
White, A., and Sons

CHLORIDE OF GOLD
Greeff, R. W. and Co.
Rowland, L.

CHLORIDE OF LIME
Government Sanitary Co.
National Chemical Co.

CHEMICALS
Andreae, Oscar and Co.
Boehm, F
Bramwell, E., and Son
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall, Backhouse and Co.
Greeff, R. W., and Co.
Hill, A. S., and Son
Hodgkinsons, Treacher and Clarke
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Aug., and Co.
Lofthouse and Saltmer
May and Baker (Limited)
Morris and Callard
Moss and Co.
Poulenc, Frères
Reade Bros. and Co.
Smith, T. and H., and Co.
Stern, G. and G. (Pumice)
Tyrer, T., and Co.

CHEST PROTECTORS
Solport, Bros.

CHLORODYNE
Davenport (Browne's)
Towle, A. P., and Son

CHLOROFORM, &c.
Duncan, Flockhart and Co.
Greeff, R. W., and Co.
Macfarlan, J. F., and Son
Mason, A. H.
Smith, T. and H., and Co.
Warrington Chemical Co.
Wright, Layman and Umney
Zimmermann, A. and M.

CITRIC ACID
Hassall and Co. (Phospho)

COCAINE-HYDRO.
Howards and Sons

COCA WINE
Armbrecht, Nelson and Co.
French Hygienic Soc.
Joseau, Gabriel
Mariani and Co.

COCOA & CHOCOLATE
Cadbury Bros Fry and Sons
Christy and Co.
Rowntree and Co.

COD-LIVER OIL
Allen and Hanburys
Burroughs, Wellcome and Co
Evans, Sons and Co.
Greeff, R. W., and Co.
Hill, A. S., and Son
Jackson, W. and H.
Lofoden Cod Liver Oil Co.
Lofthouse and Saltmer
Smith, T. J.
Southall Bros. and Barclay
Woolley, Sons and Co.

COFFEE Essence)
Symington and Co. (Coffee

COLPSIBLE TUBES
Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., and Son

COMP. MEDICINES
Allen and Hanburys
Blyton, Astley and Co.
Burroughs, Wellcome and Co
Fuerst Bros.
Hooper, B., & Co
Leo & Co.
Lloyd, T. H., and Co.
Wyleys and Co.

CONFECTIONERY
Blyton, Astley and Co.
Gibson, R., and Sons
Kerfoot, T.
Pascoll, J.
Southwell, C., & Co.
Warrick Brothers

CONCENT. LIQS.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Lloyd, T. H., and Co.

CORN CURES
Seabury & Johnson (Plasters)
Thompson, M. [F. Young, H.

COTTON WOOL
Haynes, G., & Co. (Absorbent)
Robinson and Sons (Absorbent.)
Sanger, J., and Sons
Seabury and Johnson

CRSHD LINSEED
Mumford, S. G.

DENTIFRICES
Eau de Botot
Evans, Sons and Co.
Fentiman and Co.
Jewsonry and Brown
Lakeman, J. J. "Salvine"
Lowe, C.
Quelch, H. C.
"Salviae"
Stevens, P. A.
Sutton, C., and Co.
"The Alexandra" (Ziemer)
Thompson and Capper
Warrick Bros.
Woods, W. (Areca Nut)

DRUGGISTS' SUN.
Ayrton and Saunders
Bailey, M., and Co.
Barclay and Sons (Limited)
Evans, Lescher and Webb
Evans, Sons, and Co. (Synovs)
Fordham, W. B., & Sons (Lim.)
Gilbertson, H., and Sons
Hill, A. S., and Son
Hockin, Wilson and Co
Idris and Co.
Jackson, W. and H.
Kay Bros., Lim.
Lynch and Co.
Mark, J., and Co.
Marriot, E., and Co.
Mason, A. Newton
May, Roberts and Co.
Quelch, H. C.
Rankin, W., and Sons
Sanger and Sons
Schutze and Co.
Thompson, Walters, Hole and Co., Lim.
Tidman and Son
Toogood, W.
Wood, Vincent

DRUG GRINDERS
Jordan and Co.

DRUMS
Berger, F.

DISINFECTANTS
Adams, Webster and Co.
Fletcher Bros and Co.
Government Sanitary Co.
Grindley and Co. (Lim.)
Hamilton and Co. (Lim.)
Jeyes' Fluid
National Chemical Co.
Sanitas Co.
Seabury and Johnson

EAU DE COLOGNE
Farina, J. M.
Martin, Maria (Nun)

ELASTIC HOSIERY
Wood, V.

ELECTRIC APPAR.
Darton, P., and Co
Gant and Co.
Lancaster, J., and Son
Orme and Co.

ENEMAS
Evans, Sons and Co.
Sanger and Son

ENGRAVERS
Barker, W., and Son
Corsan, J. R.
Young, C. & A., & Co.

ESSENCES
Beckett, W. Boehm, F.
Berger, F.
Bratby and Hinchliffe (Ld.)
Burgoyne, Burbidges and Co.
Bush, Son, and Co.
Bush, W. J., and Co.
Cummock, J
De Carle and Son
Firth, H.
Goodall, Backhouse and Co
Hay, W. Idris and Co.
May and Baks. (Limited)
Millar, A., and Co.
Newball and Mason
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Tyrer, T., and Co.
Woolley, Sons and Co

ESSENTIAL OILS
Berger, F.
Boenm, F.
Bush, W. J., and Co.
Bush, W., Son and Co.
Clay, Dod and Co.
Cocking & Co. (Japan Pepper-mint)
Cummock, J.
Drysdale, J. W., and Co.
Evans, Sons and Co.
Firth, H. [Clarke
Hodgkinsons, Treacher and
Lambert, S., and Co. (Sandal Wood)
May and Baker (Limited)
Miller, J. & G.
Mourard, J.
Poppelreuter, W.
Stevenson and Howell
Symes and Co.
Treatt, R. C.
Vogt, G., and Co.
Warrick Brothers
Wright, Layman and Umney

ETHER
Duncan, Flockhart and Co.
Howards and Son
May and Baker (Limited)
Robbins, J., and Co.
Tyrer, T., and Co.
White, A., and Sons
Woolley, Sons and Co.
Wright, Layman and Umney

EXTRACTS, FLUID
Allen and Hanburys
Barber, G., and Co
Burgoyne, Burbidges and Co.
Dakin Brothers
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., and Co.
Lloyd, T., Howard and Co.
Moss and Co.
Potter and Clarke
Wright, Layman and Umney

EXTRACT, MEAT
Australian Meat Co.
Bovril (Limited)
Brand and Co.
Denaeyer's Peptone and Extract of Meat Co. (Lim.)
Liebig Co.
Liquor Carnis Co. (Lim.)
Mason, G., and Co. (Lim.)

FEEDING BOTTLE
Breffitz, E. and Co., Lim.
Evans, Sons and Co.
Hearn, E. A., and Co.
Hockin, Wilson and Co.
Jackson, W. and H.
Kilner Bros.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W

FLY PAPERS
Ford, Shapland and Co.
Tunbridge and Wright
Wilson, S.

FOOD (Infants' & Invalids')
Allen and Hanburys
Baelz, R., and Co.
Brand and Co.
Goodall, Backhouse and Co.
Hearon, Squire and Francis
Liebig Co.
Liquor Carnis Co. (Lim.)
Mottershead & Co. (Beager's Food)
Nestle, H.
Ridge, Dr.
Savory and Moore

FILTERING
Fordham, W. B., & Sons, Lim
Silicated Carbon Filter Co.

GINGER ALE
Hay, W. (Essence)
Mills, R. M., and Co.

GLUE
Grove Chemical Co.
Fordham, W. B., and Sons

GLYCERINE
Boehm, F.
Gluk and Co. [Fuerst Bros
Greeff, R. W., and Co.
Lofoden Cod Liver Oil Co.
Price's Candle Co.

GRANULAR PREP.
Bishop, A., and Sons
Blyton, Astley and Co.
Curtis and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUM
Fink and Co. (Arabic, &c.)
Greeff, R. W., and Co.
Hyde, Nash and Co.
Levermore Aug., and Co.

HAIR PREP.
Chesebrough Mnfg. Co.
Edwards and Co.
Truefitt, H. P. (Limited)

HERB BEER EXTS
Lakin, W. H.
Newball and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

HERBALISTS
Newball and Mason
Potter and Clarke

HOMŒOPATHIC
Keene and Ashwell
Leath and Ross
Thompson and Capper
Watson and Wates

HOSPITALS
London Homœopathic

HYPOPHOSPHITES
Duncan, Flockhart and Co.
Fellows
Fletcher, Fletcher and Co.
Symes and Co.
Tupke and King

INHALERS
Spirone Co., The
Toogood, W.

INSECTICIDES
Keating, T.
Sanford and Co.
Steiner and Co
Thompson, Walters, Hole and Co. (Lim.)

INK [See MARKING
Bewley and Draper
Duncan, Flockhart and Co.

KOLA
Christy, T., & Co.
Thompson, M. F.
Van Horgnu, J.

KETCHUP
Tyrer, P.

LARD
Ewen, J., and Sons

LINSEED POULTCE
Seabury and Johnson

LINT
Liverpool Lint Co.
Newcome, C.
Robinson and Sons
Seabury and Johnson

LOZENGES
Allen and Hanburys
Blyton, Astley and Co.
Gibson, R., and Sons (Maxirs.)
Hill and Son
Kerfoot, T.
Pascoll, J.
Raimes and Co
Randall and Son
Stern, G. and G.
Wurrick Bros.

LIME JUICE
Evans, Sons and Co,
Idris and Co.

MACHINERY
Bayer Freres.
Burroughs, Wellcome and Co.
Poster, F.
Holroyd, J., and Co. (Lim.)
Melin, C.
Ohlsson, A.
Palau and Co.
Shears and Son
Werner and Pfleiderer

MAGNESIA
Andreas, Oscar, and Co.
Bush, W., Son and Co.
Dinneford and Co.
Greeff, R. W., and Co.
Henry, T. and W. (Calcined)
Hill and Sons, A. S.
Kerfoot, T. (Citrate)
Quelch, H. C.
Southwell, C., and Co. (Citrate)
Washington Chemical Co.

MALT EXTRCT, &c.
Allen and Hanburys
Baelz, R., and Co.
Burroughs, Wellcome and Co (Kepler's)
Hearon, Squire and Francis
Oppenheimer Bros. and Co
Reade Bros. and Co. (Biscuits)
Wyleye and Co.

MANICURE PREPARATION
Carmichael, M. W.
Dr. Paul's

MARKING INKS
Barber, G., and Co. (Crimson)
Hickleson, J.
Marx, M. and E.

MEDICINE CHESTS
Day, Son and Hewitt (Veterinary)
Day and Sons (Veterinary

MENTHOL
A1 Menthol Depot, A. W. Shirley, Proprietor
Cocking and Co.
Evans Sons and Co.
Hockin, Wilson and Co
Seabury and Johnson
Thompson, Walters, Hole and Co. (Lim.)
Tyrer, P.

MERCURIALS
Fuerst Brothers
Howards and Sons
May and Baker (Limited)

METHYLATED SPIRITS
Boord and Son
Burrough, J.
Harvey, J. and W., and Co.
Jones and Co.
Phillips, G., and Co.
Smith, S., and Co.

METHYLENE
Robbins, J., and Co.

MICROSCOPES
Darton, F., and Co.
Parken, Son and Raymont

MILK
Anglo-Swiss Condensed Milk Co.
Nestle, H. (Condensed)

MIXING MACHINERY
Gardner, W.
Werner and Pfleiderer

MORPHIA
Macfarlan, J. F., and Co
Smith, T. and H

OILS, PAINTS, &c.
Hugh Highgate and Co.
Fox, W., and Sons

OINTMENT BASES
Burroughs, Wellcome and Co.
Chesebrough (Vaseline)
Grindley and Co. (Petroleum Jelly)
Reade Bros. and Co.

OPTICIANS
Botwright and Grey
Darton, F., and Co.
Lancaster and Sons
Parken, Son and Raymont
Raphael and Co.

OTTO OF ROSE
Firth, H.
Fuerst Bros.
Moryoseph, A.
Treatt, R. C.

PAPAIN FINKLER
Kuhn, B.

PEPSINE, &c.
Burroughs, Wellcome and Co.
Chassaing and Co.
Fletcher, Fletcher & Stevenson
Greeff, R. W., and Co.
Newbery F. & Sons (Ingluvin
Parkes, G. J. R.
Stern, G. and G.
Warner and Co. (Ingluvin)

PEPPERMINT OIL
Cocking and Co.
Miller, J. and G.

PATENT MEDICINES
Armbrecht, Nelson and Co.
Atkinson and Barber (Infant Preserv)
Barclay and Sons (Limited)
Beecham T. (Pills)
Crouch, F. B.
Edwards and Son
Evans, Lescher and Webb
Fenning's (Powders)
Globe Chemical Co.
Goodall, Backhouse and Co
Gny's Tonic
Holloway (Pills and Oint.)
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
May, Roberts and Co.
Newbery and Sons
Radam's Microbe Killer Co. (Lim.)
Roberts and Co. (Foreign)
Sequah (Limited)
Sutton, W., and Co.
Thompson, Walters, Hole and Co. (Lim.)
Vozeler, The Charles A., Co.
Wilcox and Co.
Wilson, A. (Bunter's Nervine)

PATENT AGENTS
Horn and Son
Thompson, W. P., & Co.

PERFUMERY, FANCY SOAPS
Bayley and Co.
Blondeau and Cie.
Boehm, F
Burroughs, Wellcome and Co.
Chesebrough Manufacturing Co.
Chiswick Soap Co.
Coward, G. F.
Durrant, Geo [Ewen (Soaps)
Evans, Sons and Co.
Farina, J. M.
Firth, H.
Giraud Fils
Greenhill, T. S., and Son
Hatrick and Co (Lim.)
Johnson and Co.
Legrand, L.
Maan, C. A., and Co.
Mourard, J.
Newbery and Sons (Herdoes')
Oftinger, E.
Psars' Soap
Price's Patent Candle Co.
Rosmarine Manufg. Co.
Rouse and Co.
Sainsbury, S. (Lav. Water
Shirley, A. W
Thompson, Walters Hole & Co.
Tidman and Son (Lim.)
Treatt, R. C.
Truefitt, H. P. (Limited)
Warrick Brothers
West, T. (Okell's Mona)
Woolley, Sons and Co (Powders)
Young, R. D.

PEROX. OF HYDR
Dunn and Co.
Robbins and Co.

PETROLEUM
Grindley and Co. (Jelly)
Hamilton and Co. (Lim.)
Hatrick and Co. (Lucilline)
Snowdon, Sons and Co. (Jelly.

PHARM. PREPS
Allen and Hanburys
Barron, Harveys and Co.
Berger, F.
Boehm, F.
Boehringer, C. F., & Sohne
Burgoyne, Burbidges and Co.
Burroughs, Wellcome & Co.
Chassaing and Co.
Duncan, Flockhart and Co.
Elton and Co.
Fellows
Perris and Co.
Firth, H.
Fletcher, Fletcher and Co.
Fournier, Bon and Cie.
Giles Schacht and Co.
Greeff, R. W., and Co.
Green, C., and Co.
Hearon, Squire and Francis
Heilgers, F. W., & Co.
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
Jeyes Sanitary Compounds Co
Jordan and Co.
Keith & Co. (Conc. Tinctures)
Layng, R. C.
Martindale, W.
May and Baker (Limited)
Moryoseph, A.
Potter and Clarke
Rankin and Borland
Ricqles and Co.
Roberts and Co.
Southall Bros. and Barclay
Sutton, W., and Co.
Symes and Co.
Tyrer, T., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Sons and
Wyleys and Co.

PHOTOGRAPHIC
Botwright and Grey
Darton, F., and Co.
Fallowfield, J.
Greeff, R. W., and Co.
Houghton, G., & Son (Chemical
Howards and Son
Lancaster, J., and Son
Marion and Co.
Orme, J., and Co.
Parken, Son and Raymont
Tyrer, T., and Co.
White, Alfred, and Sons

PILL MACHINES
Palau, N., and Co.
Pindar, J. W.
Toogood, W. (Coater
Werner and Pfleiderer

PILLS (Coated, &c.)
Allen and Hanburys
Anderston Apothecaries Hall
Beecham, Thomas
Blair's Gout Pills
Champigny, A., and Co.
Eade's Gout Pills
Evans, Sons and Co.
Hearon, Squire, and Francis
Hill, A. S., and Son
Holloway's Hooper's
Jackson, W. and H.
Lloyd, T., Howard and Co.
McKesson and Robbins
Newbery and Sons
Robinson's
Wand, S.
Warner, W. R. and Co. Coated
Wyleys and Co.

PLASTERS
Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
St. Dalmas, A.
Seabury and Johnson
Thompson, M. F. [Young, H

PODOPHYLLIN, &c.
Keith, B., and Co.
Smith, T. and H., and Co.

POLISHING
Beckett, S.
Bradley & Bourdas (Albatum)
Chancellor, C., and Co. (Stove)
Fordham, W. B., and Sons (Limited)
Oakey, John, and Sons

PORCELAIN-WARE
Toogood. (E.c. Pots, regist.)

PRINTING
Bowers Bros.
Corsan, J. R. (Glass)
Ford, Shapland and Co.
Silverlock, H.
Townsend, J.

PUMILINE
Stern, G. and G.

QUININE SALTS
Andreae, Oscar and Co.
Boehringer, C. F., and Sohne
Greeff, R. W., and Co.
Howards and Sons
Kuhn, B.
Zimmermann and Co.

RENNET
Duncan, Flockhart and Co.
Greeff, R. W., and Co.
Oldfield, Pattinson and Co.

RESPIRATORS
Newbery, F., and Sons

SACCHARIN
Allen and Hanburys
Burroughs, Wellcome and Co.

SALICIN
Macfarlan and Co.
Smith, T. and H., and Co.

SALICYLIC ACID
Burgoyne, Burbidges and Co.
Fuerst Bros.
Zimmerman, A. and M.

SALT
Stern, G. and G. (Pepsalia)
Tidman and Son

SALOL
Kuhn, B.

SAUCES, PICKLES
Goodall, Backhouse and Co.
Mason, G., and Co. (Lim.)
Tyrer, P.

SCHOOLS, &c.
City School of Chemistry and Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homœopathic and Medical School
Manchester College
Northern School of Pharmacy
South London School of Pharmacy (Lim.)
The School of Pharmacy
Westminster College

SELTZOGENES
Bratby and Hinchliffe (Ld.)
British Syphon Co.
Evans, Sons and Co.
Geraut, E., & Co.
Lynch and Co.
May, Roberts and Co.
Thessler, E.

SEEDS
Potter and Clarke

SHEEP DIP
Fletcher Bros. and Co.
Jeyes Sanitary Compounds Co.
Wilkins

SHOP FITTERS
Bowling and Govier
Bygrave, J. and W.
Evans, Sons and Co.
Howlett, S.
Natali, E.
Natali and Co.
Potts, H., and Co.
Treble, G., and Co.
Yates, W. S.

SOAP
Ayrton and Saunders
Bayley and Co.
Blondeau and Co. (Vinolia)
Bronnley, H., and Co.
Chiswick Soap Co.
Cook, E., and Co.
Ewen, J., and Sons
Fordham, W. B., & Sons (Ld.)
Jeyes' Sanitary Compounds Co.
Lucas and Co.
Pears' Soap
Stern, G. and G.

SPONGE
Cresswell Bros.
Evans, Sons and Co.
Peterson, M., and Co.

SPECTACLES
Botwright and Grey
Darton, F. and Co.
Perken, Son and Rayment
Raphael and Co.

SPIRIT
Boord and Son
Burrough, J. (Pure & Mthyl.)
Harvey, J. and W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Phillips and Co.
Smith, Stephen and Co.

STAMPS (RUBBER)
Berkley, J.
Hickisson, J.
Pollard, A. W.

STARCH
Beckett, S.
Critchley (Gloss)

STOPPERS
Anst'n and Co. (Sprinklers)
Barnett and Foster
Melin, C.
Sanders, H. G., and Son
Stipendum Stopper Co.

STOVES
Clark, S., and Co. (Lim.)

SUGAR
Fletcher, Fletcher and Stevenson
Gibson, R., and Sons

SURGICAL
Ayrton and Saunders
Bailey, W. H., and Son
Barclay and Sons (Limited)
Cocking, J. T.
Eschmann Bros. and Walsh
Haywood, J. H.
Liverpool Patent Lint Co.
Robinson and Soos
Sanitary Wood Wool Co. (Lim.)
Schutze, F. and Co.
Thompson, Walters, Hole and Co. (Limited)
Tidman and Son
Wood, F.
Wood, Vincent

SULFONAL
Burroughs, Wellcome and Co.
Greeff, R. W., and Co.
May and Baker (Limited)

SYPHONS
Barnett and Foster
Bratby and Hinchliffe (Ld.)
British Syphon Co.
Gernut, E., & Co.
Glass Lined Syphon Co. (Ld.)
Kilner Bros.
Thessier, E.

SYRINGES
Bock, O.
De Luca, G. V.
Schoenfeld, J. & J. Frères

SYRUPS
Fletcher, Fletcher (Liquors)
Idris and Co.

TABLETS
Corsan, J. R. (advertising)
Gem Glass Co. (Ld.) (advrtsng)

TEA
French and Langdale
Gt. Tower St. Tea Co.
Walker and Dalrymple

THERMOMETERS
Bailey, W. H., and Son
Bock, O.
Darton, F., and Co.
Evans, Sons and Co.
Perken Son and Rayment

TILL
Stokes, G. R. and Co.

TINS
Noakes, B., and Co.

TOBACCO, CIGARS, CIGARETTES
Peacock, M. and R.
Singleton and Cole (Lim.)
Tuddy and Co.

TOILET
Blackwell, G. G.
Evans, Sons and Co.
Fordham, W. B., and Sons (Lim.)
Hovenden and Sons (Euxesis)
Lloyd, A. S. (Euxesis)
Mumford, G. S.
Quelch, H. C.
Rowland, A., and Sons
Truefitt, H. P. (Limited)
Woolley, Sons and Co.

TOOTH PASTE
Jewsbury and Brown
Sutton, O, and Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Areca)

TRADE MARKS
Horn & Son

TRUSSES
Bailey, W. H., and Son
Colwell, H. M.
Evans, Sons & Co.
Haywood, J. H.
Mather, W.
Thompson, Walters, Hole and Co. (Lim.)
Wood, F.
Wood, V.

URETHANE
Howard and Sons

VACCINATION
Vaccine Association (Lymph)

VALUERS AND TRNSFR. AGNTS.
Berdoe and Co.
Brett, F. J.
Crocker, G. B., & Co.
Orridge and Co.

VASELINE
Chesebrough Manufctrng Co.

VERMIN KILLERS
Sanford and Son
Steiner and Co.

VINOLIA (Superfatted Medical and Toilet)
Blondeau and Co.

VETERINARY
Day and Sons
Day, Son and Hewitt
Eilliman, Sons and Co
James, W. H. (Blisters)
Jeyes' Sanitary Compounds Co.
Lakin, W. H.
Learner, A. J.
Lloyd, T., Howard and Co.
Rookledge, J.
Spratts (Dogs)
Walker, Troke and Co.
Wyleys and Co.

WHOLESALE AND EXPRT DRGGSTS
Allen and Hanburys
Barron, Harveys and Co.
Burgoyne, Burbidges and Co.
Bush, W., Son and Co.
Bush, W., and Co.
Clay, Dod and Co.
Coward, G. F., & Co.
Dakin Brothers
Evans, Soos and Co.
Evans, Lescher and Webb
Ferris and Co.
Fox, W., and Sons
Goodall, Backhouse and Co.
Harker, Stage and Morgan
Harrington, W. and Son (Ld.)
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hodgkinsons, Treacher and Co
Lofthouse and Saltmer
Lloyd, T., Howard and Co.
Macfarlan, J. F., and Co.
Oldfield, Pattison and Co.
Potter and Clarke
Symes and Co.
Thompson and Capper
Thompson, Walters, Hole and Co. (Limited)
Walker, Troke and Co.
Willows, Francis and Butler
Woolley Jas., Sons and Co.
Wright, Layman and Umney
Wyleys and Co.

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Armbrecht, Nelson and Co.
Coleman and Co. (Meat and
Durrant, G. (Orange) (Malt
Goodall, Backhouse and Co.
Idris and Co.
Millar, A., and Co.
Robinson, B.

1,000 PILLS IN SHOW VASE, 5/6.

PIONEERS IN THE PILL TRADE!

WM. R. WARNER & CO.

SMALL SUGAR-COATED PILLS,

Unequalled in their medicinal properties or in SOLUBILITY, the best ingredients being invariably employed.
Suitable for Retail Sale, in Screw-capped Pill Tubes. Not liable to Stamp Duty unless specially recommended or sold as "Proprietary."

No. 142. Gran. Cath. Comp. (Little Cathartic Granules). Aloin, 1-10 gr.; Podophyllin, 1-5 gr.; Ext. Hyoscy., 1-20 gr.; Jalapin, 1-10 gr.; Ext. Nuc. Vom., 1-20 gr.; Ol. Res. Capsici, 1-20 gr. Dose 1 to 4.	Per 1,000, in Plain Bottle, 4/-.	Per Small Stoppered Vase with painted glass label, 5/6.	Per Stoppered Vase, with painted glass label. (5,000.) 21/-.

No. 180.—Gran. Cath. Co. c. Euonymin. Same as "No. 142," except that ½ gr. Euonymin is used instead of ¼ gr. Podophyllin. Prices same as for "No. 142."

An "all-round" Antibilious Pill, which has found favour wherever introduced, is "No. 120" ("Pil. Cathartic and Liver").

No. 120. Pil. Cathartic and Liver. ℞ Podophyllin, ¼ gr.; Ext. Colocynth, ½ gr.; Pv. Soc. Aloes, 1 gr.; Pv. Scammony, ¼ gr.; Pv. Saponis, 1-8 gr.; Ext. Hyoscyami, 1-8 gr.; Gingerine, 1-8 gr. Dose, 2 to 4 pills as a purgative, 1 to 2 pills as an aperient.	Per 1,000, in Plain Bottle, 4/-.	Per Stoppered Vase, with painted glass label, 6/4.	Per Bottle (Bulk) of 5,000, 18/9.

Write for New Complete Price List of PILLS, GRANULES and PARVULES, &c., by W. R. WARNER & CO., giving upwards of 250 Excellent Formulæ, at moderate and greatly reduced prices.

Depot: F. NEWBERY & SONS.

TO WHOLESALE DRUGGISTS, &c.

Buyers of the following are invited to send for Samples and Prices before placing their Orders elsewhere. They will find it to their ADVANTAGE to do so.

BENZINE. In 6*d.* and 1*s.* bottles.
CEMENT. To retail 1*d.* and 3*d.*
CASTOR OIL (Crystal, Tasteless). In bulk, or packed in bottles from ½ oz. to 1 lb.
COD LIVER OIL. In casks, or packed in 6*d.* and 1*s.* bottles.
CORN SOLVENT. To retail 1*d.* and 3*d.*
FEEDING BOTTLES. All kinds.
FLY PAPERS.
FULLER'S EARTH (Powdered). In bulk or in packets.
GLYCERINE. In bulk or packed in bottles, from ½ oz. to 1 lb.
COLZALINE (or Golden Oil). Our Speciality.
HAIR OIL. In bulk, or packed in bottles, from ½ oz. to 1 lb.
INSECT POWDER. In bulk, or packed in 1*d.*, 2*d.*, 3*d.*, and 6*d.* boxes.
LIME CREAM. In 6*d.* and 1*s.* bottles.
MENTHOL CONES. Extra Powerful Brand. To retail 1*d.*, 2*d.*, 3*d.*, 4*d.*, and 6*d.*
MACHINE OIL. In bulk, or in 1*d.*, 2*d.*, and 6*d.* bottles.
POMADES. All kinds, to retail from 1*d.* upwards.
PILLS. In bulk, or packed in 1*d.* boxes.
SEIDLITZ POWDERS. In boxes.
TOOTHACHE TINCTURE. In 1*d.* and 3*d.* bottles.
VASELINE SUBSTITUTE.

In these days of **competition**, buyers should seek the **best markets.** We confidently state that **no other firm** offers the **advantages that we do.**

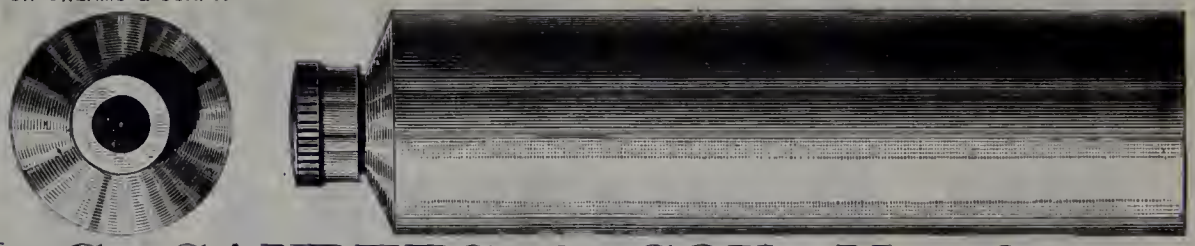
WRITE FOR SAMPLES AND PRICES.

W. & H. JACKSON, 14 MANESTY LANE, LIVERPOOL.

METALLIC COLLAPSIBLE TUBES FOR PAINTS,

Perfumes, Shaving Creams, Soaps, Oils, and all Fluid or Semi-Fluid Substances.

FOR CREAMS & SOAPS.



H. G. SANDERS & SON, Manufacturers,

Victoria Works, Victoria Gardens, Notting Hill Gate, LONDON, W.

TELEGRAPHIC ADDRESS: "COLLAPSIBLE LONDON." [3] ESTABLISHED 1820

M. BAILEY & CO.

MANUFACTURERS OF DRUGGISTS' SUNDRIES.

M. B. & Co. beg to call the attention of the Trade to the following articles manufactured by them:—

Glass Syringes, Nipple Shields, Breast Exhausters, Fittings for Feeding Bottles, Tubes, and Tube Work in all its branches, &c., &c.

Sole Proprietors and Manufacturers of J. Brooks & Co.'s celebrated Specialities:—Winter Cream, Lip Salve, Solidified Camphor Cream, Glycerine Jelly, Perfumery, &c., &c.

Buyers are cautioned against imitations of these World-renowned preparations. None are genuine unless bearing our Registered Trade Mark.

May be obtained through any of the Wholesale Houses. Wholesale and Export only from

M. BAILEY & CO., 32 and 34 Buckingham Road, KINGSLAND, N.

28

BURROUGHS WELLCOME & Co
LIBRARY
No.

DID THE DRAGON EXIST or NOT?

For the answer to this interesting question, see the Winter Issue of The Chemist and Druggist, page 9, with **convincing** illustrations.

We have now the pleasure to bring to the notice of the Trade an entirely novel pattern in **Dragon** Brand Menthol. It is watch-shaped, as shown by the figure, and, being polished all over, is eminently pocketable and easily carried. Put up in pretty half-dozen outers.

THE "ECLIPSE."

PRICE 6d. Retail, 3s. 6d. dozen, 40s. gross

We would respectfully draw the attention of the trade to the fact that we are the originators of this pattern.

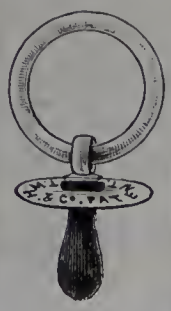
TEETHING PADS

The **CHEMIST AND DRUGGIST,** alluding to our New Show Room, says :—"Here one is struck with the business-like way in which the wants of the omnipotent 'baby' are catered for."—*Chemist and Druggist*, No. 556, page 822.

The "Eclipso," 1/-. 7/6 dozen.

The "Eclipse," 6*d*. Seamed, 3/6 dozen. Seamless, 3/9 „

The "Baby's Friend." 3/10 dozen.



The "Eclipso," 4*d*. 3/- dozen.

Soother, with Ribbon, 3*d*. 1/9 dozen.

The "Whistling Fascinator," 6*d*. 3/- dozen.

The above are a few of the Teething Pads we are now supplying. They are made of the best materials, and have been found to have an excellent effect in quieting noisy infants. They cannot possibly do harm, and are very saleable when freely displayed.

ALL THE ABOVE QUOTATIONS ARE SUBJECT TO OUR USUAL DISCOUNT.

THOMPSON, WALTERS, HOLE & CO., LIMITED, CURTAIN ROAD, E.C.

EDWARDS' INSTANTANEOUS HARLENE

WORLD-RENOWNED

HAIR PRODUCER & RESTORER.

1/-, 2/6, 3/6, and 5/6 per Bottle.

Liberal Terms to Shippers and the Trade. Particulars on application

NOTICE.—Counter Bills, with Agent's Name and Address printed on, forwarded free on application.

NOW READY.—Handsome Framed Show Card free on application, or may be obtained through any Wholesale House.

OPAL GLASS TABLETS fixed on windows if desired.

EDWARDS & CO.

5c NEW OXFORD ST., LONDON, W.C.

Trade Mark. Registered.

THE

ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,

12 PALL MALL EAST, LONDON, S.W.

SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.

HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank with orders, payable to EDWARD DARKE *Secretary.*

Office hours, 10 to 4. Saturdays 10 to 2

BAILEY'S PATENT

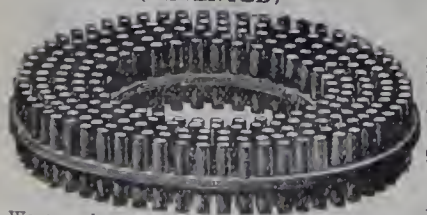
RUBBER "COMPLEXION" BRUSH.

Retails for 3s. 6d. each.
Price 25s. per dozen.

Used with a little soap in the daily ablutions, the gentle friction of this brush makes the skin beautifully soft and smooth, effectually eradicating all blemishes, blotches, wrinkles, coarse lines, &c., and entirely superseding the poisonous cosmetics and face-washes now in use. It is simply invaluable for bathing the delicate skin of infants and children.

BAILEY'S RUBBER TEETHING RING

(PATENTED)



Is perfectly tasteless, and so constructed that the flattended teeth serve to expand the skin of the gums, softening the latter, and thus aiding the coming tooth without irritation. It is made of pure Para Rubber, and entirely supersedes the old-fashioned and injurious articles sold for this purpose, and is highly recommended by leading Physicians and Dentists.

Retails for 5d. each.
Price 3s. 6d. per dozen.

We are also the Makers of BAILEY'S BATH and FLESH BRUSHES, price 42s. per dozen; RUBBER TOILET BRUSHES, prices 8s. and 17s per dozen; and RUBBER TOOTH BRUSHES, price 6s. and 6s. 6d. per doz.

Of all Wholesale Houses, or direct from the Manufacturers,

DAVID MOSELEY & SONS,

14 Aldermanbury Avenue, LONDON, E.C.
Ardwick MANCHESTER; and 57 Miller St., GLASGOW.

30

CALORIFIC FLUID

FOR

Annulling Pain during the Extraction of Teeth.

Prepared by D. Wharrie, Chemist, 50 Berry Street, Liverpool, strictly according to the Formula approved of by the late Mr. Snape.

This fluid is an absolutely safe local anæsthetic, which can be applied in a few seconds without inconvenience.

To be obtained at all Dental Depots, and from the Proprietor,

D. WHARRIE, 50 BERRY ST., LIVERPOOL.

In Stoppered Bottles, with full Directions for use, 4s. and 7s. 6d. each.

DENTAKON

For Cleaning

ARTIFICIAL TEETH,

EITHER

Gold, Platinum, or Vulcanite,

Deodorizing, Disinfecting, removing **Grease,** keeping them **Bright** and **Clean** as when new.

ALL WEARERS SHOULD TRY IT.

Recommended by many eminent Dentists.

In Boxes, 1s. 6d., through any Chemist, or Post free from Maker,

C. LOWE, Chemist, Surbiton, S.W.

EWEN'S LARD

IS

GUARANTEED PURE.

EVERY GENUINE PACKAGE BEARS THEIR LABEL

Trade Mark.

Facsimile of Label.

EWEN'S

Clarified Fat Works,

Perfumery and

Toilet Soap Factory,

5 HATFIELD STREET, LONDON, S.E.

Trade Mark.

Facsimile of Label

SHIRLEY'S

A1 MENTHOL CONES & OTHER SPECIALITIES!

FIRST OF ALL, a few words on the question of **"ORIGINALITY."**

WHO has done the most to create the trade in **MENTHOL CONES?** Has not the **A1 BRAND** led the way? Therefore, as the Proprietor of the A1 Brand, I feel perfectly justified in supplying Cones in any shape or form in which they may be introduced, seeing that all Patterns I have myself put on the market have been studiously copied by others.

BOXWOOD PATTERNS.

No.			
8P.	6d.	Acorn, on foot	3/3 doz.
103B.	4d.	Pedestal	2/6 „
113R.	6d.	Reversible	3/6 „
111.	1s.	Acorn, on foot	6/6 „
112.	6d.	Draughtsman	3/3 „
17F.	1s.	„	5/- „
9CR.	1s.	Reversible	4/6 „
*6.	6d.	Pedestal	3/3 „
*14L.	1s.	„	6/3 „
*17S.	6d.	Draughtsman	3/9 „
*17FP.	1s.	„	5/6 „

* These Patterns have directions *printed* on the Boxwood.

No. 40.

THE WATCH SHAPE,

Which is really a Draughtsman modified and made flatter. 3/3 doz.

Special Prices to Wholesale Buyers.

The Charming China Figure JUSTICE given away with 40/- order assorted Cones.

CHEAPER PATTERNS.

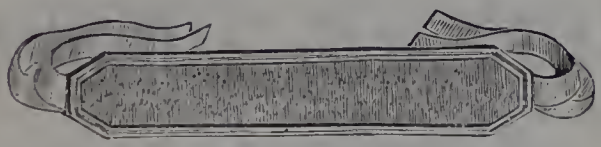
No.			
110V.	1d.	Vase shape, 3 doz. on card	7/- gross.
110P.	1d.	Pedestal „ „ „	7/- „
114.	2d.	Vase, varnished „ „	14/- „
114P.	2d.	Pedestal „ „ „	14/- „
115.	3d.	Flat shape „ 2 doz. on card	20/- „
109.	4d.	Willow Pedestal	2/6 doz.
117.	6d.	Large „	3/3 „
118.	6d.	Lighthouse shape	3/- „

NEW 15/- CASE.

Anyone ordering 15/- worth of Cones, assorted, other than 1d., is presented free with a most attractive folding Counter Case, with glass front.

HANDY AND PRETTY.

NEW SEASON'S LOOFAH GOODS.



No. 112.	GLOVE, Loofah and Coloured Turco	5/6	dozen
„ 116A.	„ „ „ White Turco	4/6	„
„ 116C.	„ „ „ Coloured Canvas	4/6	„
„ 130.	BELT „ „ „ Turco	9/9	„
„ 125.	„ „ „ „ „ larger	12/3	„
„ 124.	„ „ „ Rough Turco	12/-	„
„ 129.	„ Loofah both sides	9/6	„

BEFORE BUYING SMELLING BOTTLES, CHINA BOTTLES, TOILET BOTTLES, ODORATORS, &c.,

CALL OR WRITE FOR PRICES AND SAMPLES.

A large quantity to select from.

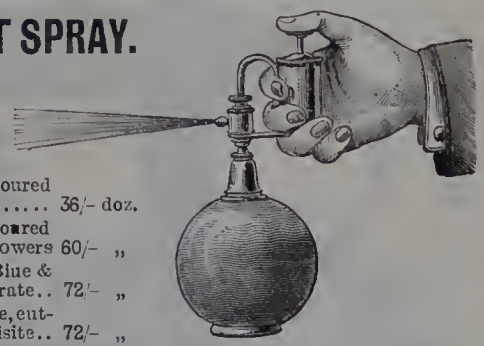
New Patterns constantly added.

GOOD 1/- SPRAY.

No. 41.—Assorted Coloured Glass, ribbed, ball on top	8/6	doz.
„ 42.—6d. Spray, assorted Colours	4/3	„
„ 43.—6d. „ „ „ ribbed	4/3	„
„ 44.—9d. „ „ „ „	6/-	„

NEW CORNET SPRAY.

Being the only one with Pump principle which can be held and worked with one hand.



No. 47.—Assorted Coloured Crackled Glass	36/-	doz.
„ 48.—Cream Coloured Opaque, with Flowers	60/-	„
„ 49.—Globe shape, Blue & Gold, very elaborate	72/-	„
„ 50.—Diamond shape, cut-glass, most exquisite	72/-	„

SPECIAL LINE.

No. 1.—Double Ball, Opaque Blue Glass, Pink and Gold Flowers, 28/- doz.

TOOTH SOAP.—A1.

Splendid 6d. line on Easel Card. Sells at sight. 3/9 doz.

WHEN ORDERING SPECIFY A1 BRAND.

CARBOLIC TOOTH POWDER.—A1.

Very attractively got up in Tin Boxes.

¾-oz.	2/2	6 doz.	1/11 doz.	12 doz. 1/9
1 „	3/-	„	2/9 „	„ 2/6
1½ „	3/6	„	3/3 „	„ 3/-
3 „	5/-	„	4/9 „	„ 4/6

SHAVING A1 CREAM.

In Collapsible Tubes, attractively carded.

4/- doz.

A1 BABY SOOTHERS.

4d.—Bone Ring, Polished Seamless Teat	2/4	doz.
6d.—Bone Ring, Polished Seamless Teat	3/6	doz.

1 dozen on a Card.

ETIENNE FRÈRES' PERFUMERY.

EXQUISITE PERFUMES, ATTRACTIVELY GOT UP.

6d., in Cut Stoppered Bottles, tied with Silk Bow	4/	doz.
6d., ½ oz. Round Essence, with Sprinkler	3/9	„
6d., „ „ „ corked and capped	3/6	„
*1s., in 1 oz. Cut Stoppered Bottles, Lundborg shape	8/	doz.
1s., in 2 oz „ „ „ „	13/	„
1s., in 4 oz. „ „ „ „	24/	„

* If 3 dozen of this series be ordered, Chemists' own name can be put in full.

SAMPLE 1d. TUBES, 3 or 6 doz. on card, 8/ gross. 2d. TUBE, 2 doz. on card, 15/ gross.

Perfume in Bulk, double ..... 7/ 20 oz.; Triple ..... 10/ 20 oz.

ARTHUR W. SHIRLEY, 55 FARRINGDON ROAD, LONDON, E.C.

TRUSSES.

THE BEST FOR SHAPE AND QUALITY. FIRST PRIZE, 1879.

MANUFACTURED THROUGHOUT ON THE PREMISES.

GREAT FACILITIES FOR MANUFACTURE AND QUICK DESPATCH OF SPECIAL TRUSSES.

BAILEY'S TRUSSES FOR SCROTAL HERNIA.

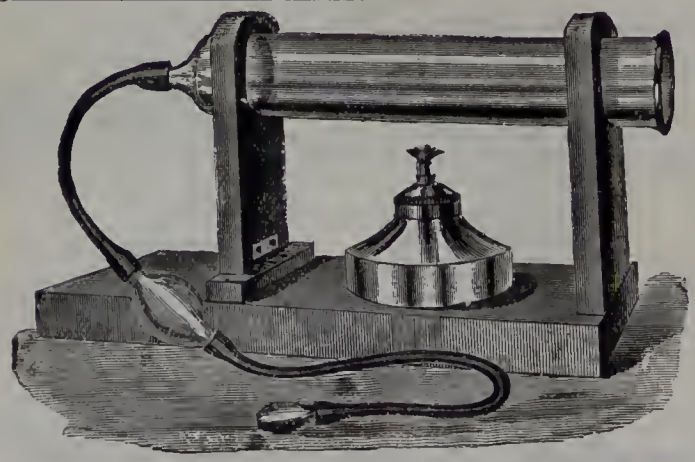
BAILEY'S INDIARUBBER TRUSSES FOR INFANTS.

MANUFACTURERS and DEALERS in all kinds of SURGICAL APPLIANCES, WHOLESALE and for EXPORT

Shippers and the Wholesale Trade Supplied on Best Terms and Lowest Prices.

W. H. BAILEY & SON, 38 Oxford St., LONDON

ILLUSTRATED CATALOGUE AND TERMS ON APPLICATION.



MAXWELL'S CHLORIDE OF AMMONIUM INHALER.

The simplest and cheapest Apparatus yet introduced to the profession. Requires no strong caustic or acid liquids Fumes are invariably neutral.

Retails for 4s. 6d.

To be had of all Chemists and Sundriesmen, and of the Proprietors—

ANDERSON & ADAMS

68 GRAFTON STREET, DUBLIN.

LYNCH & CO., London Agents.

Patented in Great Britain and America.

SEASON 1890-1.

CHEST PROTECTORS.

In SCARLET, WHITE, PINE, & NATURAL FELT. In CHAMOIS LEATHER and FLANNEL, and in PINE FELT LINED WITH PERFORATED CHAMOIS.

WHOLESALE AND EXPORT ONLY OF

SOLPORT BROS.

66 Shaftesbury Street,

New North Road, LONDON, N.

QUOTATIONS GIVEN FOR ANY SIZE OR PATTERN.

32

SOLUBLE "TABLOIDS" OF COMPRESSED DRUGS.

B., W. & Co. are the sole makers of the only original and genuine "Tabloids" of Compressed Drugs, as prescribed by the medical profession throughout the world, and as supplied to H. M. Stanley and other great explorers and travellers (*vide* published reports).

Caution.—Be not misled into taking *any* imitations of the original and genuine "Tabloids" of Compressed Drugs.

Write for price lists and samples of *disintegrating* "Tabloids" of insoluble or sparingly soluble Drugs.

B., W. & Co. were the first to place these products upon the market.

HAZELINE.

The Witch Hazel Plant. (*Hamamelis Virginica, Linn.*)

A colourless, distilled product, containing the volatile active principles of the fresh green twigs and leaves of the Witch Hazel.

Properties.—*Hæmostatic, Anodyne, and Astringent.*

Prescribed in cases of hæmorrhage from the nose, lungs, womb, rectum, &c. Is a valuable agent in the treatment of bruises, sprains, inflammation, peritonitis, piles, fistula, anal fissure, ulcers, varicose veins, eczematous surfaces, tonsillitis, pharyngitis, nasal and post-nasal catarrh, stomatitis, leucorrhœa, nasal polypi, &c.

Hazeline supplied to the trade in ¼-lb. and 1-lb. bottles, at 14*s.* and 42*s.* per dozen.

"TABLOIDS" OF CORNUTINE HYDROCHLORIDE IN METRORRHAGIA, &c.

Cornutine is pronounced by Kobert to be the chief agent in the fluid extract of ergot, or ergotin, which excites clonic contractions of the pregnant uterus, culminating, perhaps, in the expulsion of the uterine contents.

Cornutine causes a slight increase in the blood-pressure when given in $\frac{1}{60}$-gr. doses, and in large doses the alkaloid causes, like veratrine, muscular rigidity and spasms.

Dr. H. Thompson (*Annual of the Universal Medical Sciences*, 1890) has successfully employed Cornutine in the treatment of metrorrhagia, of puerperal or non-puerperal origin. "Tabloids" have been prepared from the alkaloid approved by Kobert, each containing $\frac{1}{60}$ gr., and are suitable either for subcutaneous injection or administration by the mouth.

"Tabloids" of Cornutine Hydrochloride (gr. $\frac{1}{60}$) are supplied to the Trade in tubes of one dozen, at 12*s.* per dozen tubes.

HAZELINE CREAM.

Prepared with "Lanoline," which absorbs 100 per cent. of Hazeline, forming a white, cooling, emollient Cream of remarkably soothing and healing properties. This preparation is considered by many medical practitioners to be superior to the ordinary Cold Cream of the pharmacies. As an application for *piles, anal fissure, prolapsus ani*, and irritable conditions of the anal membrane this Cream is unsurpassed. It may be cleanly and conveniently applied by means of the Ward Cousins Ointment Injector.

"Does not turn rancid, is devoid of free fatty acids, its action being pleasantly soothing and emollient."—*Dublin Medical Journal.*

Hazeline Cream is supplied in elegant glass jars at 14s. per dozen, and in 1-lb. bottles for dispensing, at 5s. each.

BEEF AND IRON WINE (Burroughs)

Is a highly concentrated tonic-stimulant. Each tablespoonful represents the tonic and stimulant value of one ounce of good fresh beef with one grain of iron in a pure medicinal wine previously freed from tannin.

Dose.—1 to 4 drachms in water with meals.

Beef and Iron Wine supplied in ½-lb. and 1-lb. bottles, at 22s. and 42s. per dozen.

Beef and Iron Wine with Quinine is also supplied in ½-lb. and 1-lb. bottles, at 27s. and 50s. per dozen.

TINCTURE OF STROPHANTHUS.

This is the first commercial Tincture of Strophanthus, and is found by physicians to be the only perfectly uniform and reliable preparation, because prepared from the first and finest shipment of the true seed sent to London.

The "Tabloids" contain each two minims of the Tincture, and are the safest and most convenient form of the drug to use.

Uses.—"Strophanthus," writes Dr. Fraser, "may be used with advantage in all weak states of this organ, whatever the cause of weakness;" but in case of degeneration, or insufficient compensatory change, will probably do little good. Not only will it often dissipate the uræmic symptoms in Bright's disease, but in contracted kidney with dropsy it has quickly induced sleep and caused free diuresis. In Bright's disease, with its concomitant symptoms, it is in most cases invaluable, and some have obtained good results in the anasarca of hepatic cirrhosis and chronic peritonitis. While in purely bronchial and nervous asthma it is not so beneficial, its beneficent effects in the dyspnœa of cardiac and renal diseases have been most marked. It is not a stimulant, but a cardiac tonic.

Dose.—The Tincture (1 in 20) may be taken in doses of from 2 to 10 drops, the former being a small dose.

Strophanthus Tincture supplied in ½-oz. and 1-oz. bottles at 4*s.* and 6*s.* per dozen; 1-lb. bottles at 6*s.* each.

Strophanthus "Tabloids" supplied in bottles of 50 and 100 at 8*s.* 6*d.* and 16*s.* per dozen.

ICHTHYOL

Is given internally in the form of capsules or pills in Chronic Skin Diseases, as eczema, psoriasis, acne rosacea, &c.; it may also be applied as an ointment made with "Lanoline" to the parts affected. A small quantity of Ichthyol *well rubbed* into the parts in muscular rheumatism, or along the course of the sciatic nerve, will quickly relieve the pain of sciatica. The ointment made with "Lanoline" is probably the best application for burns and scalds known.

Ichthyol is supplied to the trade in 1-oz. bottles at 16*s.* per dozen. Ichthyol Pills (1½ gr.), in bottles of 100, at 27*s.* per dozen bottles.

PINOL

Is easily distinguished from the inferior preparation by its delightful and refreshing odour, its ozonising properties, and therapeutic activity in affections of the throat and lungs.

In the treatment of gout and rheumatism baths of Extract of Pinol, with subsequent applications of Pinol, are considered by many to be a cure.

The Pinol-Eucalyptia Inhaler, or the Vereker Improved Chloride of Ammonium Inhaler, may be used for inhaling Pinol in throat and lung affections.

Pinol supplied in ½-oz. and 1-oz. bottles, 15*s.* and 24*s.* per dozen.

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(REGISTERED TRADE MARK)

Sample Box Three Dozen Tablets, 9/-, Carriage Paid.

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Each Tablet in Card Case.

SOAP.

The Best Emollient in the World must be the Best Basis for Toilet Soap. **32/- PER CROSS TABLETS.**

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Proprietors and Sole Makers of the "Vaseline Preparations."

"BLUE SEAL," our regular 6*d.* size, without Card Case, in Boxes of one gross, 32s. net.

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Called "Adeps Lanæ Hydrosus" in B.P. Addendum 1890, and manufactured under control of Prof. Liebreich.

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BURROUGHS, WELLCOME & CO., LONDON, E.C.

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For Infants, Children, and Invalids.

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HIGHEST AWARD—ADELAIDE, 1887, and MELBOURNE, 1888.

The Lancet describes it as "Mr. Benger's admirable preparation."

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The British Medical Journal says: "Benger's Food has by its excellence established a reputation of its own."

The Illustrated Medical News says: "Infants do remarkably well on it. There is certainly a great future before it."

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Wholesale of all Wholesale Houses.

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Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

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Dries rapidly on the Paper.
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Flows easily from the Pen.
Blotting-paper may be applied at the moment of writing.

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See "CHEMIST AND DRUGGIST," December 15th, 1874.

THE CHEMIST AND DRUGGIST

ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:
MELBOURNE AND SYDNEY, AUSTRALASIA.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4*d.* each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

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"Manual of Pharmaceutical Testing." By B. S. Proctor, F.I.C. 2*s.* 6*d.* (by post, 2*s.* 9*d.*).

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VETERINARY COUNTER PRACTICE.

3*s.* 6*d.* (post free, 3*s.* 10*d.*)

This book will be published in the first week of April. It will deal with the diseases of all domestic animals in the style most useful to chemists and druggists. Orders can now be booked.

SUMMARY.

THE Inflammable Liquids Bill is practically dead.

WE give in this issue a portrait and sympathetic record of the life-work of the late Henry Groves, the Anglo-Italian pharmacist.

WHITING is so cheap that few aërated-water makers trouble about its quality. Mr. McGrath shows, in a note, that it is worth more attention.

MR. JOSEPH INCE gave the Chemists' Assistants' Association some interesting hints regarding pharmaceutical Latin, which we report in this issue.

MR. WEDDELL, of Newcastle, has set about exposing the dangers of pharmacy, and his preliminary list is formidable enough to justify the opposite of cutting prices.

THE Pharmacy Bill has embarked on its Parliamentary voyage. It was read a first time on Friday of last week. The French Pharmacy Bill passed a first reading on Saturday last.

MATERIA MEDICA is well looked after in this issue, both new remedies and new forms of old ones being subjects of articles this week. Some practical formulæ of value are collected on page 461.

CHLORODYNE has been the subject of inquiry in Parliament during the week. It is its exemption, as a patent medicine, from the operations of the Pharmacy Act which Mr. Samuel Smith inquired about.

OUR legal reports include a Sequah libel dispute and another phase of the electric-belt dispute. A curious case arising out of a dispute in regard to the delivery of some sulphate of copper, in pursuance of an agreement, is reported from the City of London Court.

THE annual meeting of the Chemical Society was held on Wednesday evening, when Professor Crum Brown was elected President for the ensuing year. The Society is in a prosperous condition. We believe we may state that the grant of 100*l.* from its research fund is to the Pharmaceutical Research Laboratory. This may be read along with our comment on the aconite research.

MR. JUSTICE GIBSON, sitting at Belfast, has had a case brought before him of great interest to the trade. Mr. S. Clotworthy, a well-known Irish chemist and druggist, sold a man some nitric acid, closing the bottle with a cork. The acid corroded the cork, and burnt the man's trousers, also damaging his skin slightly. For this he got 3*l.* damages in the court of first instance. Both parties appealed to the assize court. At the latter pharmaceutical-chemist opinion was all in favour of glass-stoppered bottles for nitric acid, whereas the druggists said that the acid is very commonly sold, and always in corked bottles. Mr. Justice Gibson maintained the druggists' view, and reversed the decision of the lower court. The case is fully reported in our legal columns.

APPOINTMENT OF ANALYST.—At the last meeting of the Clerkenwell Vestry Mr. Kear Colwell, the public analyst to the parish, was unanimously re-elected. There was no other candidate for the position.

A SOCIAL EVENING.—The employés of Messrs. Burroughs, Wellcome & Co. held their third conversazione on Tuesday evening, the firm having, with their usual liberality kindly placed the Holborn Town Hall at their disposal. Dancing began at 7.45 and terminated shortly after 11. Between the dances excellent songs were rendered by Messrs. W. H. Kirby and Stanley Stevens. Thanks are due to Mr. J. Collett Smith, who officiated as M.C. in his usual efficient manner, and to Mr. Claud Fabian, for valuable services rendered. About twenty-five couples were present, and all spent a most enjoyable evening.

THE SOUTH LONDON SCHOOL OF PHARMACY.—A social concert in connection with this institution was held at the Horns Assembly Rooms, Kennington, on March 20. About 150 were present, of whom the majority were "lambs," though there was a sprinkling of old students and friends. Dr. Muter filled the chair, and Mr. Baxter was vice. In the course of the proceedings, which were chiefly vocal and musical, Dr. Muter toasted the "Old Students," for whom Mr. Kingan responded. This and the other toasts of "Dr. Muter," proposed by Mr. Benson; "Mr. Baxter," by Mr. Kirkby; and the "South London School," by Mr. Seccombe, the honorary secretary of the Chemists' Assistants' Association, were all received with the utmost cordiality; and the songs by Messrs. Field, Burchett, Hicks, Martin, Parker, Minedel, Alymer, Court, Benson, Bradbury, Gilbert, Dr. Coppin and the chairman were vigorously applauded, some of them being excellently rendered.

A PHARMACEUTICAL INSPECTOR.—Fred Wood (25), of Malham Road, Forest Hill, described as a chemist, although there is none of that name on the register, was charged at the Greenwich Police Court on Monday with gaining access to No. 5 Albion Villas, Forest Hill, by respresenting himself to be an inspector of police, supposed for an unlawful purpose. About midnight on Saturday Wood rattled at the window and door, and, on the owner asking what was the matter, the prisoner replied that he had disturbed four burglars and was a police-inspector. He said that he wanted to come into the house to see if there were any accomplices of the burglars inside. He was let into the house, and pretended to make an inspection, going into different bedrooms. As he left the house he dropped neatly into a policeman's arms. Prisoner now said that he had been drinking, and did not know what he was doing at the time, and his mother explained that drink affected the prisoner's brain. Fined 5*l.*, or a month's imprisonment.

DISINFECTANTS FOR THE CLERKENWELL VESTRY.—At the meeting of the Clerkenwell Vestry on March 19 the following tenders were received for the supply of disinfectants for the ensuing twelve months. Messrs. Adams, Webster & Co., Manor Chemical Works, Hackney, sent in prices as follows:—95-per-cent. clear carbolic-acid fluid, free from tar oils and sulphuretted hydrogen, 1*s.* 1*d.* per gallon; 70-per-cent. soluble carbolic-acid fluid, free from tar oils and sulphuretted hydrogen, 11*d.* per gallon; 10-per-cent. carbolic disinfecting powder, free from tar oils and sulphuretted hydrogen, 3*s.* 3*d.* per cwt. Messrs. J. Doughty & Co., 121 Westminster Bridge Road, S.E.:—95-per-cent. clear carbolic-acid fluid, free from tar oils and sulphuretted hydrogen, 1*s.* 9*d.* per gallon; 70-per-cent. carbolic acid, dissolved in caustic soda and free from tar oils and sulphuretted hydrogen, 2*s* per gallon; 10-per-cent. carbolic disinfecting powder, free from tar oils and sulphuretted hydrogen, 4*s.* 6*d.* per cwt. Messrs. Adcock, Easton & Co., Charteris Works, Charteris Road, Finsbury Park:—95-per-cent. clear carbolic-acid fluid, free from tar oils and sulphuretted hydrogen, 1*s.* 2*d.* per gallon; 70-per-cent. carbolic acid, dissolved in caustic soda and free from tar oils and sulphuretted hydrogen, 10*d.* per gallon; 10-per-cent. carbolic disinfecting powder, free from tar oils and sulphuretted hydrogen, 3*s.* 11*d.* per cwt. In reply to a question, the vestry clerk (Mr. R. Paget) said there was a clause in the contract-paper that the contractor engages to "deliver the above materials in such quantities, at such times, and at such places in the parish, as may be required by you or your surveyor, and to pay the cost of analysis should it not prove to be in accordance with the tender." This, the clerk said, was found necessary because it had been the case that they had got very far from the percentage contracted for. Mr. Walton moved that Messrs. Adams, Webster & Co. should have the contract; Mr. Norbury seconded. Mr. Weston asked which class of disinfectant the vestry made most use of. The Clerk: Pretty evenly between the three items. The motion was adopted.

News of the Week.

AN OLIVE-OIL FACTORY is soon to be built in Sonoma County, California, by a company which now has 60 acres of six-year-old olive-trees, and is planting 700 acres more. The plant will cost $250,000.

THE PERFUMERY STOCK of Richard D. Young, of New York, was sold by public auction last month, and realised from $6,000 to $7,000. The business will be continued as the Richard D. Young Perfumery Company, with Mr. R. D. Young as manager.

THE PHARMACY BILL (FIRST READING).—In the House of Commons, on Friday night, Sir Henry Roscoe obtained leave to bring in a Bill to amend the Pharmacy Acts. It was backed by Dr. Farquharson, Sir Trevor Lawrence, Sir Guyer Hunter, and Mr. King. The measure was read a first time, and the second reading was fixed for April 15.

NATURAL MINERAL WATERS were classified by the U.S. Customs officials in the new tariff under par. 341, but the importers objected, stating that by par. 650 they were placed in the free list. The matter has been fought out before the U.S. Board of General Appraisers, and the judge has decided in favour of the importers, but the bottles have to pay duty.

INFLAMMABLE LIQUIDS BILL.—In the House of Commons on Tuesday the Home Secretary, replying to Mr. Chamberlain and Sir E. Birkbeck, said the notices of opposition to the Inflammable Liquids Bill were so numerous that its chance of passing this year was very small. He proposed, therefore, to ask for a Select Committee to inquire into the whole subject of inflammable liquids, and to await their report before proposing any further legislation.

LAUDANUM MISADVENTURE.—At Mendlesham, on Saturday, an inquest was held respecting the death of a lady named Francis. It appeared from the evidence that Mrs. Francis suffered from neuralgic pains, for which she was in the habit of taking laudanum. The Rev. Alfred Wardroper, Vicar of All Saints', Islington, deceased's son-in-law, deposed that the laudanum was sent to her by post, in ¼-lb. bottles, from Mr. Gostling, chemist, Stowmarket. He was sure she would not take it with the intention of committing suicide. The jury returned a verdict of "Death from misadventure through an overdose of laudanum."

PACKING SALT FOR THE DUTCH EAST INDIES. — Some months ago we announced that the Dutch-Indian Government had offered a considerable reward for a method of preserving salt in small packets in a dry state. It is now announced that several casks have been received from European manufacturers competing for the prize, but none of them have been found satisfactory. Mr. E. H. C. Wolff, of Batavia, has sent a petition to the Government asking to be allowed to make experiments with the Government salt with a new mode of packing which he has invented, and, if the experiments are found satisfactory, to give him a monopoly for the term of twelve years.

DETERMINED TO DIE.—At the Lutterworth Petty Sessions on Tuesday Ellen Wickes, wife of a farmer, was charged with attempting to commit suicide on Monday by taking poison. Superintendent Brewett stated that he went to Walton and

found that Sergeant Collyer, of Gilmorton, had been sent for and also Mr. H. W. Fagge, M.R.C.S., of Lutterworth, the woman having swallowed a large quantity of Battle's vermin-killer. The surgeon applied the stomach-pump with great difficulty, the woman being so determined that she had to be gagged. At length she vomited and slowly recovered. She was under the influence of drink. Prisoner's husband promised to take strict care of her, and she was discharged.

A Case in Proof of our assertion a fortnight ago that chemists and druggists often save the lives of poison-buyers. Henry Jarvis, a Birmingham rule-maker, went home the other day, offered up some prayers, produced a packet labelled "Poison," said "Good-bye!" in a melodramatic manner, and swallowed the contents. Sergeant Owen, who was sent for by the terrified wife, found the man seated in a chair waiting for his quietus. The sergeant marched him off to the chemist's, with the idea of administering an emetic. Then it leaked out that the wary chemist, suspecting mischief when the prisoner applied for the poison, had simply wrapped up some powdered chalk. Prisoner said his wife's "nagging" tongue was the cause of his wanting to take his life, but she declared it was owing to his drinking habits. On his promising not to repeat the experiment, he was set at liberty.

Strange Stock for a Druggist.—The contents of the Drug Stores, Oxford Road, Reading, came under the auctioneer's hammer on Monday. Amongst the items offered were "six tolo-jars" and a lump of pumice-stone—the size of a piece of chalk, of course. We had not heard of Strammonier's cigarettes until the sale took place: "12 half-doz." of these were offered, and there were four bottles of "æsenless" water, as well as "three ¼-doz. hurelein." Another tolo-jar turned up, along with a cleaner. Perhaps it was this one that contained the "one dozen and three grains of Paradise" It would not be so difficult to count out these as it would to separate "the jar of hirdlime and sundries," which was put up together with a strange disregard of compatibility. The auctioneer discriminated between doctors' bottles and chemists' bottles. What is the difference, we wonder; and what meant he by "tincture of magnesia"? There was a "handsome chemist's lamp," too, which was to be expected of the proprietor of a drug-store. Fortunately, there were no poisons—the most killing things, apart from the handsome chemist, being two ice-freezers and the auctioneer's orthography.

No Scholar and Laudanum.—At Sheffield, on March 21, John Brown, a table-knife cutler, appeared before the stipendiary magistrate on a charge of attempting to commit suicide. It appeared from the evidence that on the previous Tuesday John had the colic, and a friend with whom he was drinking told him that laudanum was a sure cure. Brown slept on this advice, and the next morning went to the shop of Mr. A. Archer, chemist, Springvale, where he asked for sixpennyworth of laudanum. He stated that he wanted it to rub a horse's knees with, and was supplied. He then went home, took some of the drug, and soon began to get drowsy. His relatives became alarmed, and sent for Mr. Archer, who applied remedies, and then conveyed Brown to the Infirmary, where he was brought round. The Stipendiary, questioning Brown, asked: You knew that the word poison was on the label? Brown: I am no scholar. The Stipendiary: Yet you think yourself capable of physicking yourself. Brown: No: I thought to myself it would cure me. The Stipendiary: You have gone very near curing yourself once for all. Brown: Yes, I believe so. I took too much. I shall never do it again. Brown was then remanded at large, and left the court.

Is Chlorodyne a Legal Poison?—In the House of Commons, on Monday, Mr. Samuel Smith asked the Secretary of State for the Home Department whether his attention has been drawn to the large consumption of chlorodyne, especially among women, and the grave evils which result from this practice; whether the fact of chlorodyne being a patent medicine, and protected by a stamp, exempts it from the operation of the Sale of Poisons Act; and whether the Government will take into consideration the expediency of classing chlorodyne with other narcotics, and only allow it to be sold under the same restrictions. Mr. Matthews said: "I received last year a representation from a coroner's jury that some restriction should be placed on the sale of chlorodyne. I forwarded this representation to the Privy Council Office, which is the department concerned. The answer to the second paragraph depends upon the proper construction of sections 16 and 17 of the Act, to which I beg to refer the hon. member. Section 2 of the Pharmacy Act, 1868, prescribes the manner by which any article may be added to Schedule A of that Act—namely, by a resolution of the Council of the Pharmaceutical Society. The hon. member should address any representation to that Society in the first instance."

Beilby Retorts.—Recently Messrs. William Young, consulting chemist, Priorsford, Peebles, and George Thomas Beilby, chemist, Slateford, patentees of improvements in retorts for the obtaining of oil and ammonia from shale, sued the Hermand Oil Company, Edinburgh, for 1,000*l.* as royalties upon 120 retorts in defendants' works at Hermand, which, they said, were worked upon the principle of their invention. Lord Kinnear, sitting in the outer house of the Court of Session, Edinburgh, decided in favour of the defendants. The plaintiffs appealed to the higher division, and on Friday last Lord Kinnear's decision was maintained. Lord Trayner said that Young & Beilby's invention consisted of the treating of the shale with a high heat at the top of the retort so as to produce oil, and with a high heat at the bottom so as to produce ammonia. In his opinion the process was a separate one, conducted in separate parts of the retort, at different heats, to obtain different products. In the defendants' retorts the heat was graduated from a high heat at the bottom to a low heat at the top, but the process was continuous, and not, as in the Young and Beilby, by successive steps. He therefore agreed with the result the Lord Ordinary had arrived at. Lords Young and Rutherfurd Clark were of the same opinion. The Lord Justice-Clerk differed, holding that the process in the Beilby retort was practically continuous, being regulated both as to time and heat according to the character of the shale which was being used.

Legislation on Chemical Manures.—On Tuesday Mr. Chaplin, Minister for Agriculture, received a deputation of chemical-manure manufacturers at the Board of Agriculture with reference to the proposed legislation on chemical manures. Sir Albert Rollit, M.P., introduced the deputation, and remarked that there was a very strong opinion in the London Chamber of Commerce that Mr. Channing's Artificial Manures Bill very materially interfered not only with one branch of industry, but with many. They came with the object, if not of improving the Bill, at any rate of facilitating the introduction of some measure which would protect the public adequately against anything in the shape of fraud, and which would be free from harassing and embarrassing details. Its title was Artificial Manures, while the body of the Bill dealt with feeding-stuffs, and therefore the title should be altered accordingly. The committee of the London Chamber, who had examined this matter very carefully, reported that as regarded oilseed cakes it was impracticable to guarantee an exact analysis of each case; in the case of imported cargoes it would destroy the trade if analysis was insisted upon. They desired to have any Bill dealing with this subject referred to a Select Committee. Several gentlemen having spoken as to the objections to the Bill in detail, Mr. Chaplin replied. He said he understood that they entertained strong objections to Mr. Channing's Bill, and he was bound to say that he was not surprised at that. But he would be greatly wanting in judgment if he indicated the precise way in which the Government would endeavour to give effect to legislation on this subject until they had carefully weighed the information which had been placed before them. He understood they were prepared to accept the principle of invoice certificates being sent out with goods, and they had also indicated the necessity of the appointment of competent analysts. These and other matters would be carefully considered, and if the Agricultural Department found any difficulty they would gladly avail themselves of the proffered aid from the manufacturers. The deputation then withdrew.

Evans's Safe.—In our issue of February 28 it was stated that the premises of Evans & Co. (Limited), Montreal, narrowly escaped destruction by fire, but were slightly

damaged by water. We are glad to hear from the firm that this is a mistake, the fire in the street, 220 yards distant from their warehouse, not having affected them in the least.

Grasse and Flower-farming.—A *Times* correspondent, writing *à propos* of the Queen's forthcoming visit to Grasse, gives an interesting historical sketch of the much-described perfume-centre, in which he manages to bring out one or two new points concerning the establishment of flower-farming in Grasse. One of the earliest occasions upon which the present staple industry of the town is mentioned in history was in 1595, when the Duc de Guise, Henri Quatre's Governor of Provence, was presented by the municipality of Grasse with 12 cheeses and a few flasks of orange-flower water. At one time the chief source of wealth for Grasse was its leather trade, but its tanneries were crushed out of existence by the fiscal laws of the Revolution, and since then the principal industry has been the making of perfumes and preserved fruits. Not that the making of perfumes is a modern industry at Grasse, for it dates from the time of Catherine de Medicis, who sent a Florentine named Tourbarelli to open a laboratory there, while her chief physician, Dona di Roberto, paid occasional visits to Grasse in order to see how things were going on there. But at that time the quantity of scent made was very small, and scarcely any of it was sold, while now the average annual consumption of the flowers used by M. Roure, M. Chiris, and other large manufacturers is enormous, being estimated at 1,200 tons of orange-blossoms, 800 tons of roses, 200 tons of jasmine, 100 tons of violets, and 30 tons of tuberose. The bulk of these flowers is grown in the fields, which form a regular carpet of variegated hue between Grasse and Cannes, and the rest come from Nice, Italy, and even the East, the manufactories in which the scent is made being among the most interesting sights of Grasse. A visit to the establishment of M. Joseph Nègre is also calculated to remove the idea that Grasse is an uninteresting little place, though the most important industry next to that of perfumery is the trade in oil, there being about 30 oil-mills in and around Grasse for crushing the olives which grow in such abundance upon the slopes of the mountains and are living witnesses to the mildness of the climate. Soap was at one time made here in large quantities, but competition with Marseilles has been found a hopeless enterprise; and so Grasse rests poetically upon its flowers, its fruits, and its olives.

IRISH NEWS.

New Drug Shops.—Mr. Robinson has opened a new shop at Mannor Street, Dublin, and another is in course of erection at the junction of Richmond Street and the South Circular Road for Mr. Ryan.

Drug-contracts.—Yearly contracts for the supply of drugs, medicines, surgical and medical appliances, will be made on the following dates:—Athlone Union, Ballycastle Union, Cookstown Workhouse, Dunmanway Poor-law Board, March 28; Lisnaskea Union, April 4; Manorhamilton Union, April 4; Midleton Workhouse, March 28; and Monaghan District Asylum, April 4.

An Old Account.—At a meeting of the Londonderry Board of Guardians held on Monday last, an account for medicines due to Messrs. Galbraith, chemists, late contractors to the board, was ordered to be paid. The medicines were supplied in 1887, but the account had not been furnished at the time owing to the death of Messrs. Galbraith's bookkeeper and the change of dispensers. The motion to pay the account was passed by 6 to 3 votes, some of the guardians declining to vote. The chairman said the account must go before the Local Government Board before it could be paid.

Antiseptic Vaults.—Public attention has within the past few days been prominently drawn to the antiseptic properties of St. Michan's Vaults, Dublin, in which, it is stated by a correspondent in the *Irish Times*, bodies have lain undecayed for centuries preserved by magnesia permeated through the soil by the decaying oak bark and roots of a forest that existed on the spot before the church was built. This theory has, however, excited adverse comment from scientists, who are disposed to regard the desiccating properties as being due to the magnesian limestone with which the walls are built, and which, by absorbing the moisture, effectually prevents decay.

Misadventure in a Hospital.—At the Cork Assizes on Friday, March 20, Catherine Horgan was charged with having caused the death of Bridget O'Brien, a patient in the fever-hospital of the Cork Workhouse by administering an overdose of chloral on August 10 last. The deceased was admitted to the fever-hospital on August 7, and died on August 10. The prisoner was then employed as temporary nurse. Dr. M. J. Murphy, resident medical officer, said that when deceased was admitted she was suffering from typhoid fever. He was present when Dr. Cummins prescribed a drug. The nurse was directed to give it in a teaspoon with a little water to the patient, and as soon as possible. The prisoner could read and write. The bottle produced was one similar to that in which the drug was given. The label contained the words "A teaspoonful in a little water at once." Later witness met the prisoner in the hospital. She said that the patient had fallen into a sleep, and owing to the way she was snoring she had thought it better to send for him. Deceased died at five o'clock the same day, the cause of death being failure of the heart, brought on by the depressing influence of the drug. The prisoner was acquitted, the judge remarking that it was a strange thing that the prisoner, who was in reality a cook, should have been placed in charge of eleven fever-patients.

Told the Truth about Himself.—On Friday last, at the Dublin Police Court, during the hearing of a charge of extensive burglaries against an ex-convict, one of the witnesses for the prosecution, Mr. William James Walker, of 7 Lower Dominick Street, chemist and druggist, was subjected to a rather severe cross-examination by the prisoner. Walker deposed that he had seen the accused six or eight times with a woman named Sutherland, and that he saw him under suspicious circumstances. Cross-examined by the prisoner: Where did you become acquainted with me?—In prison. How long were you there?—Eighteen months. What did you go to gaol for?—For having a shop. (Laughter.) For having a shop?—Well for getting goods and not paying for them. (Renewed laughter) Were you ever in prison before that eighteen months?—I was, for delivering a letter. (Laughter) My goodness! For delivering a letter. It was proved to be a forged letter on the London and North-Western Railway Company. What did you get for that?—Nine months. That is a very good indication of the kind of character you are, without my speaking at all. The Magistrate: It is quite possible for a man who has been convicted to tell the truth. The Prisoner: If you weigh him in the balance he will be found wanting. (Laughter.) Witness: I was brought here to tell what I know, and I am simply telling the truth. Prisoner: Any person looking at you would know that you are not able to tell the truth. I think it would have been better for you to have stayed away. Mr. Walker's ordeal then ended.

FRENCH PHARMACEUTICAL NEWS.

(*From our Paris Correspondent.*)

A Pharmacist Charged with Murder.—A young pharmacist named Grosset has been arrested on the charge of murdering his grandmother. It is stated that the prisoner was tainted with suicidal monomania, and before reaching the age of twenty made several attempts to drown himself. He was educated by the Brothers of St. Nicholas at Issy, and apprenticed by them to a provincial pharmacist. His relations state that he is of weak mind, and, in consequence, has been a source of much trouble to them.

Pharmaceutical Legislation.—The new law on pharmacists passed a first reading at the Chamber of Deputies last Saturday without special incident. An amendment proposed by M. Froin, requiring pharmacists to exercise their functions personally, was rejected as needless. Messrs. Lockroy, Bourgeois, Vilfeu, and Ricard, authors of a special provision concerning the obligations of pharmacists as regards public relief, formulated certain reserves which they will bring forward at the second reading. M. Fumel

endeavoured to profit by the occasion to obtain a first reading for a new Act on veterinary surgery, but failed.

THE FORMATION OF COLOURED LACS.—A paper on the formation of coloured lacs, obtained by means of stannic oxide and safranine, was read at the Academy of Sciences last week, being the analysis of a work by M. Léo Vignon, of Lyons. These laborious researches may be thus summarised:—Firstly, the formation of coloured lacs is similar to the dyeing of textile fabrics, and, secondly, the processes of absorption which textile fabrics and certain metallic oxides exert on colouring-matters are of a chemical nature. This last point is the conclusion of M. Vignon's previous works on the thermo-chemistry of textile fabrics, cotton-dyeing, &c.—works of much interest, to which the Academy has accorded due appreciation.

PHARMACIST AND PHYSICIAN.—The Eleventh Tribunal Chamber of the Seine has just delivered judgment in a curious case brought by a Parisian pharmacist, M. Biard, against a former friend and old school-fellow named Dr. Manilève. Mme. Biard had become too intimate with the physician, and had gone so far as to give him jewels and silverware as a means of getting ready cash to meet his gambling debts. On her fault being discovered Mme. Biard consented to enter the convent of repentant women, but Dr. Manilève induced his own wife to go and implore her to return to him. On learning this, the injured pharmacist commenced the prosecution, but the doctor at once took measures to have the purloined jewellery returned to Mme. Biard. In giving sentence the court commented strongly on Dr. Manilève's conduct, and condemned him to prison for two months, with a nominal fine of 1 franc.

THE PLASTERING OF WINE.—In the course of the recent debate on the law regarding wine at the Chamber of Deputies, the question was raised as to whether the authorisation of the addition of plaster in small quantities should be suppressed. A member remarked that the Academy of Medicine and all hygienic authorities had declared that more than 2 grammes of sulphate of potash per litre was injurious to health. Dr. Brouardel, however, urged that as much as $2\frac{1}{2}$ grammes would be harmless; a third member insisted that the practice should be rendered altogether illegal, alleging that in many cases dyspepsia was caused thereby. This statement Dr. Desprès contested, and it was asserted by M. Deandreis that most wines contain some plaster even in their natural state. On a division being called a majority of the Chamber was found to be in favour of limiting the plastering to 2 grammes.

DENTAL LEGISLATION.—In course of the recent discussion on the practice of medicine at the Chamber of Deputies, M. Brouardel, Commissary of the Government, drew attention to the fact that dentists frequently made use of violent poisons, also of chloroform and cocaine. It is necessary, he said, to take measures to prevent the practice of dentistry by incompetent persons, on account of the deaths that occasionally occur. M. Isambard moved an amendment to make it compulsory for dentists to obtain a "brevet," but without giving them authority to practise medicine. This was rejected, but a second amendment by the same gentleman, calling the certificate to be delivered to dentists a "diploma" instead of a "brevet," was passed. M. Brouardel afterwards explained that, under the new law, anæsthetics would only be allowed to be used during the attendance of a qualified medical man, or by dentists who were also doctors of medicine.

THE SALE OF MINERAL WATERS.—The question, "Ought the sale to the public of mineral waters to be exclusively reserved to pharmacists?" was laid before the Academy of Medicine last week. M. Bouchardat read a report of a committee of the Academy on the subject, to the effect that the sale of harmless table-waters, such as those that are slightly ferruginous or alkaline, sulphated or calcareous, might be entrusted to persons not holding a pharmaceutical diploma. The committee considered also that strongly mineralised waters, properly called medicinal, such as Vichy, Vals, and Bussang, might also be allowed to be freely sold, as at present. They were of opinion, however, that certain mineral waters containing an active ingredient, such as the Bourboule water, which is strongly impregnated with arsenic, should be sold by pharmacists only, as well as all French or foreign purgative waters. The committee considered that sulphur waters should be likewise restricted. The various conclusions were adopted by the Academy.

CHEMICAL SOCIETY.

THE anniversary meeting was held on Wednesday evening, at 8 o'clock, the attendance being exceptionally large. The retiring president, Dr. W. J. Russell, F.R.S., delivered

THE ANNUAL ADDRESS,

in which he reviewed the work of the society during the year. The society now has 1,752 fellows, or 54 more than in 1889—114 having been elected, and 60 removed by death, withdrawals, and non-payment of dues. There were 101 communications, 72 of which were published, these occupying 1,051 pages—a much greater bulk than the same number of papers the year before, and equal in merit, the president thought. After referring to the Journal, Dr. Russell mentioned that the Longstaff medal for encouraging the promotion of chemical science by research was this year awarded to Professor Japp, who since the medal was awarded three years ago has published eight papers. He then referred to the Jubilee celebration, mentioning that the Goldsmiths' Company had intimated that they would pay the cost of the entertainment in their hall. The presidents always include a special topic in their addresses, and the one which Dr. Russell selected on this occasion was the

CHANGES

in the constitution and government of the society since the charter was granted in 1858. These have been few, and mainly in the direction of improvement. The museum was given up in 1886, and the Journal was started in 1858. The question of the admission of persons into the society has been more discussed than any other, owing to a misconception on the part of the public that F.C.S. is in the nature of a degree. Hence, in the *Chemical News* there has been correspondence on three occasions—in 1867, 1877, and last year, chiefly directed to objecting to other than trained chemists being elected fellows. Dr. Russell discussed each year's circumstances in detail, showing that in 1867 a committee of the council considered the matter, and raised the number of signatures from three to five. In 1877 the Institute of Chemistry was founded in order to meet the demand for a society consisting only of competent and qualified chemists, and the last agitation has resulted in the certificates of each candidate being published in the "Proceedings" before balloting. The President considered that the present objections are largely met by the existence of the Institute of Chemistry, which he extolled, and favoured the view that the Chemical Society is a body which should include all who are interested in the progress of chemistry provided their social position is good.

On the motion of Dr. J. H. GILBERT, seconded by Mr. MICHAEL CARTEIGHE, the President was thanked for his address.

Professor THORPE (treasurer) then submitted the financial statement, which showed that the income was 4,227*l.* (3,459*l.* from subscriptions), and the expenses 3,790*l.*, the Journal alone swallowing 2,724*l.* The receipts, Dr. Thorpe explained, were 170*l* less than the year before, owing to fewer composition fees being paid, and also owing to the blackballing, which was a loss to the society of 156*l.* (Laughter.) The Journal cost 400*l.* more than in 1889, but that was because it was bulkier. The society now has 13,319*l.* invested, exclusive of the research fund, which is 5,617*l.* From this 60*l.* of grants were made during the year, the income being 172*l* The report was adopted.

After this there were various votes of thanks, and the

ELECTION OF OFFICE-BEARERS

followed, the new ones being:—President, Dr. A. Crum Brown, F.R.S.; vice-presidents, John Pattinson, and William A. Tilden, F.R.S.; foreign secretary, Raphael Meldola, F.R.S.; E. Atkinson, Ph.D.; W. H. Perkin, jun., F.R.S.; Boverton Redwood; and John A. Voelcker, Ph.D.

A discussion on the by-laws concluded the business.

Personalities.

MR. A. T. WATSON is erecting a new shop for his business in Mill Lane, West Hampstead, which will be electrically lighted.

THE New Yorkers tried to tempt Professor Remington to go to their School of Pharmacy, but Philadelphian attractions proved too much for him, and he is to stay there.

THEY respect pharmacy in Queensland. Mr. G. J. Page, of Ipswich, Queensland, had won two gold medals in his examinations at Brisbane. Mr. Ryott Maughan came over from Brisbane, and the mayor of the town presented the medals to Mr. Page at the council chamber.

MR. COUSINS has resigned his appointment as assistant-dispenser to the Sheffield Infirmary, and is succeeded by Mr. C. H. Twelves (late with Mr. Preston, High Street). The appointment is worth 65*l.* per annum, and dinner.—The Sheffield Union dispensership, rendered vacant by the resignation of Mr. W. Dutton, has been filled by the appointment of Mr. Houfton (also from Mr. Preston's).

MR. BARRATT is not only an influential member of the firm of Pears, but a well-known art patron, says the Gossipper of the *Illustrated London News*. One of the finest flower-pieces in the Goupil Gallery Exhibition is sent by him. Mr. Barratt is a keen and discriminating picture-buyer, and his ever-increasing collection is a veritable Eldorado to lovers of art. He is also a lover of the country, spending much of his time in his beautiful place near Henley (Lord Conroy's family seat), which he has leased from its owner.

THE JUBILEE SEASON.—An interesting ceremony took place in the new hall of the South London School of Pharmacy, in Kennington Park Road, on the morning of February 27, when the popular and much-esteemed head of the school, Dr. Muter, F.R.S.E., F.I.C., F.C.S., was the recipient of a handsome presentation from the students on attaining his jubilee. Mr. Mawer occupied the chair, and Mr. Baxter made the presentation, which consisted of a "smoker's cabinet" in oak, with silver mounting, and an illuminated address signed by 120 of the present students. Dr. Muter replied very feelingly, saying that, while he had always discountenanced such proceedings, he had found himself compelled to give way on this occasion.

HENRY GROVES, whose death we recorded three weeks since, was the youngest son of Richard Groves, pharmacist, of Weymouth, Dorset, and brother of T. B. Groves. He was born in the year 1835, and educated mainly in London, at the well-known school in the Old Kent Road, under the care of Mr. Walton. He was apprenticed to his father, and, on the completion of the term, studied at the School of the Pharmaceutical Society, where, in 1856, he obtained a certificate in the examination for botany and materia medica. Subsequently he was for two years with John Bell & Co., and then for three years with C. Delacre, of Brussels. Returning home, he assisted his father for a time, and then, having heard of an opening in Florence, repaired thither, and completed the pharmacy which a Mr. Frazer had commenced at 15 Via Borgognissanti. It is remarkable that Mr. Frazer's death was sudden, having been caused by accidentally swallowing a small set of false teeth. For nearly thirty years the business was carried on by Mr. Groves with great success, his pharmacy being the common resort of the English-speaking residents and visitors of Florence, where it was understood that, in addition to good medicines, kindly advice and help might always be relied upon. Naturally of a healthy and robust constitution, he for many years enjoyed life to the full, but some ten years ago symptoms of diabetes manifested themselves, which necessitated caution. Then a slight attack of paralysis supervened, from which, however, he had partially recovered, when a repetition, on March 1, 1891, terminated his life almost instantaneously. The funeral took place at the Protestant cemetery, outside the Porta Romana, Florence, and was very numerously attended by persons of all ranks and conditions. The flowers and wreaths, many of them of great beauty, required a special carriage for their conveyance. The newspapers, English and Italian, expressed in feeling terms, the following day, the general regret at the loss of one so universally loved and respected.

Mr. Groves, though an all-round chemist of unusually wide and varied experience, devoted himself mainly to the pro-

secution of botany, which for the greater part of his life he followed up with ardour. When a lad, he would walk to Portland Bill and back—a distance of twelve miles or more—in pursuit of his favourite occupation, starting at daybreak, and returning in time for commencing the day's business. As a collector, he speedily exhausted the Weymouth district, so that he gladly welcomed the "fresh fields and pastures new" offered by Italy. In 1871 he married a Genoese lady, who thoroughly sympathised with his tastes, helped him with his collections, and often accompanied him on his excursions. These were undertaken during the summer, when business at Florence comes to an almost complete standstill, and often were continued for six weeks at a stretch, the most out-of-the-way and unexplored localities being chosen for investigation. In turn were visited Monte Argentaro, the Maremma, the Abruzzi (including Monte Marrone, Monte Majella, &c.), the Appian Alps, Monte Gioja, the Appenines, South Italy (including Otranto, Taranto, and Gallipoli), Sicily, and Tunis.

Some of these trips exposed the party to considerable privation, owing to the absence of places of shelter other than those offered by the squalid cabins of shepherds, or the more wholesome, if somewhat airy, refuges afforded by caverns. The necessaries of life had to be carried on mule-back, and the only meat obtainable was miscischia, the air-dried and salted flesh of some unfortunate sheep or goat, killed by falling from a precipice. *Chenopodium Bonus-Henricus* was found not a bad substitute for the usual green-food of civilisation.

In this way Mr. Groves amassed a very large collection of dried plants, and obtained a knowledge of Italian botany not perhaps excelled in his day. But in addition to the plants of his own collecting he acquired a vast number of European species by means of exchange with the numerous small exchange societies to which he was affiliated. At the time of his death the total number of specimens in his herbarium amounted to close upon 50,000, the arrangement and custody of which had absorbed the greater part of his spare time, leaving but little for recreation. The whole of these, with the exception of a comparatively small number of cryptogams, has been left to the Central Botanical Society of Tuscany, to be incorporated with its present collection. Of this society he was one of the founders and some time president. Mr. Groves succeeded in adding not a few new

plants to the flora of Tuscany, and one new to science received the specific name of Adalgisa, in honour of his wife. His contributions to pharmaceutical literature were as a rule connected with his favourite science. We might mention papers on Florentine orris, on Italian saffron, on indigenous Tuscan remedies. His last communication, "Then and Now," appeared not long since in THE CHEMIST AND DRUGGIST, and was generally regarded as both "witty and wise." It is much to be regretted that an exhaustive paper on *statice*, his favourite genus, on which he had bestowed great pains and spent much time in excursions to various points on the Mediterranean shore, was left at his death unfinished. It is hoped that some sympathetic friend will put the finishing touches to it and see it through the press. Mr. Groves contributed also to the Journal of the Linnæan Society, of which he was a fellow, as well as to the proceedings of various Italian societies.

DANGERS OF PHARMACY.

MR. GEORGE WEDDELL contributed a paper on this subject to the Newcastle-on-Tyne Chemists' Assistants' Association at a meeting on the 18th inst. Mr. F. Park was in the chair. The full title of Mr. Weddell's paper was "Some dangers of pharmacy in storing, handling, manufacturing, dispensing, and selling dangerous drugs and chemicals." In this paper, he said he was only opening a rather extensive subject. He had been favoured with assistance from Mr Atkins, of Salisbury; Dr. W. Inglis Clark, and Mr. Dott (Duncan, Flockhart & Co.), Messrs. Smiles and D. Mackenzie (F. & H. Smith & Co), and Mr. Peter Boa, of Edinburgh; Mr. Lane (Woolley, Sons & Co.), Manchester; Mr. Martindale, Mr C. Umney, and the editor of THE CHEMIST AND DRUGGIST, London; also from his local *confrères* Messrs. Bambridge, Claguc, Park, and B. S. Proctor; and from Mr. Linford (Lofthouse & Saltmer), Hull. Mr. Weddell said it was impossible in a single evening to go thoroughly into all the dangers of pharmacy, but promised that if members of the calling would assist him by sending him their experiences of danger, whether physical, chemical, physiological (poisons), or legal, he would, when leisure permitted, bring the matter in a more or less compact form before the general body of chemists and druggists. He also asked them to consider nothing too commonplace, or, on the other hand, too uncommon, to be communicated, and promised due acknowledgement to contributors. The points on which he invites information are dangers incurred in:

Storing Handling Manufacturing Dispensing and Retailing	Inflammables (Also notes on Spontaneous Combustion) Explosives Corrosives Poisons — Vapours, Liquids and Solids

The following are amongst dangerous substances and compounds mentioned by Mr. Weddell:—

Inflammables.

Mixtures of H. and O.	Ethers
Cotton-wool (near gas)	Ac. carbolic (in liquefying)
Sugars (in syrup-making)	Fats and oils
Spirits (in heating or measuring near light)	Carbons?
	Hydrocarbons

Explosives.

Syphons of aërated waters	Argent. oxid.
Potass. chlor. (powdered in iron mortar, or trampled under foot on floor)	Phosphorus, amorphous
	Picric acid and picrates
	Nitro-glycerine
Mercuric oxalate (in powdering)	Sulphur hypochlorite (in tapping stopper)
Argentic oxalate (in powdering)	Hypophosphites (in powdering)
Fulminates of silver and mercury	

Mixtures.

Pot. chlor. c. antim. nig.	Pot. bichrom. c. alcohol
,, c. hypophosphites	Pil. phosphori
,, c. glycerin.	Sp. terebinth. c. H_2SO_4
,, c. ammon. sulphuret.	Iodine and iron
Pot. chlor. c. morph. mur.	,, and liq. ammon. fort.
,, c. sulphur	Nitrate of lead and charcoal
,, c. tannin	Ac. chromic. and glycerine
Pot. permang. c. glycerin.	Strong acids and ,,
,, c. alcohol	Tr. nucis vom. c. acid. nitro-mur. dil. (burst)
,, c. fe. redact.	

Corrosives.

Sulphuric acid (spurts if water added to it instead of it to water. What application?).	*Chromic acid.*
	Chlorine.
	Bromine.
Nitric acid. (What application?)	*Hydrofluoric acid.* (Application?)
Nitric-acid fumes. (What application?)	*Sodium.* (Application?)
	Phosphorus. (Application?)
Hydrochloric acid.	*Caustic soda.* (Application?)

Poisons

of various kinds were mentioned by the author, with precautions to be observed; and also a number of dangers of various kinds to be guarded against at the retail and dispensing counters—such as transposition of labels on liniment and mixture bottles; labelling strong drugs "Poison," or "With caution," even (when for internal use) in giving customers what they ask for; protest or caution, if necessary; badly-dried bottles for kali; when temperature rises, see to stoppered bottles, in case they burst; volatile liquids not to be kept on a high shelf; carbon bisulph., &c.; powdering chrysarobin, corrosive substances, plumbi acet., potass. cyanide, &c.; a mixture of calomel and gum forms a cement; in pills, danger of not having active ingredients (strychnine, ext. physostigmatis, &c.) thoroughly mixed; putting nitric or other strong acid in dirty bottle (turpentine, &c.); using distinctive bottles for external applications.

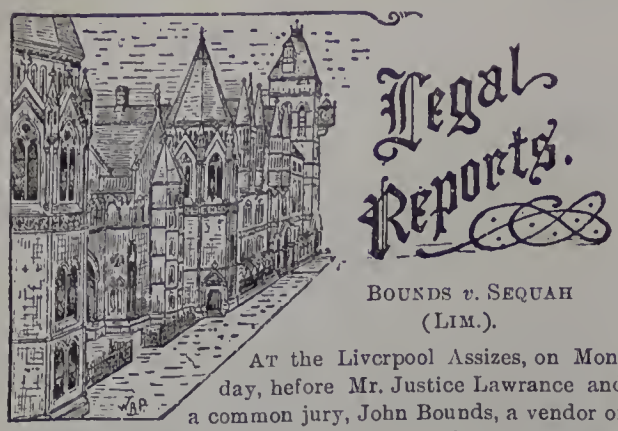
In closing, Mr. Weddell briefly touched on the legal dangers which beset the unwary pharmacist, such as drugs not up to requirements (Sale of Food and Drugs Act); drugs under common names (citrate of magnesia, milk of sulphur, sweet spirit of nitre, &c.); sale of S.V.M. on Sundays; sale of same for drinking or without licence; use of same in preparations capable of being used internally; use in patent medicines (although unknown to seller); use of still without licence, or for methylated-spirit preparations; sale of medicated wines without licence (if capable of being used as a beverage); acting as an apothecary (do not take pay); ships' medicine-chests (not to requirements); stamp-duty: poisons not labelled, or insufficiently so; sale of medicines capable of being used for improper purposes; buying goods dishonestly acquired, &c.

Considerable discussion followed, and, with a hearty vote of thanks to Mr. Weddell, the meeting closed at 10 P.M.

[Mr. Weddell will be obliged if chemists will send him observations of dangers in mixtures, &c., to 20 West Grainger Street, Newcastle-on-Tyne.]

THE DOCTOR WAS ASKED—Why should you avoid prescribing castor-oil for wealthy patients? He gave it up. Because it is only used for working people was the explanation.

CONCENTRATED ESSENTIAL OILS.—At a recent meeting of the Liverpool section of the Society of Chemical Industry, Mr. A. A. Barrett read a paper on concentrated oils of lemon and limes. The former, he stated, has a specific gravity of 0·901 at 15° C. We gather from the paper that the concentration is made by distilling the terpene from oil of lemons, and purifying the residue, which contains the flavouring principle. The oil of limes concentration is prepared in the same way; it has a specific gravity of ·920 to ·923. Both the oils form a magma with bisulphite of soda, and they are soluble in rectified spirit in all proportions. It is assumed from the properties that the oils are aldehydes.



Bounds v. Sequah (Lim.).

At the Liverpool Assizes, on Monday, before Mr. Justice Lawrance and a common jury, John Bounds, a vendor of medicine, trading as "Dr. Galen," sued the defendant company for damages for libel. There was a counter-claim for slander. Mr. Mulholland appeared for the plaintiff, and Mr. Pickford and Mr. Horridge for the defendants.

The plaintiff's case was that he had been libelled in a systematic manner by the circulation of hundreds of handbills in the various towns he visited, warning the public against itinerant adventurers who copied the defendants' titles and form of advertisements. These bills had been issued by defendants' agents. The Sequah Company had a capital of 300,000*l.*, and there were really twenty-five Sequahs up and down the country. The bills were issued in Kidderminster, Warrington, Northwich, Earlestown, and other places. In June, 1890, placards were distributed at Earlestown "warning the public against an individual who calls himself Galen and uses the name of Sequah." Before he was interfered with he used to take 30*l.* to 40*l.* in a night, and at Northwich one night he took 12*l.*, and after the issue of the bills only 12*s.*

The plaintiff, in his evidence, said that at Kidderminster one of the defendants' agents said he would ruin him. The defendants' solicitor had, on behalf of the defendants, offered to settle the case. Cross-examined as to whether he had not "travelled in Bibles," the plaintiff answered, "I bought the debt of a man who was travelling with Bibles in Herefordshire; that was eleven years ago." He added that he had a man named Freeman working for him for some time. That man had gone back to the Sequah Company. Sometimes Freeman was "Galen" and he (plaintiff) was the "professor."

Mr. Horridge examined the plaintiff to show that he had copied Sequah advertisements, and also his system of having bands. The plaintiff said he used to have music before Freeman came. He used to have Scotch bagpipes.

His Lordship: That was making the people ill before you cured them. (Laughter.)

The plaintiff was next examined as to certain denunciatory expressions he and his man were said to have used in reference to Sequah. He denied that when "lecturing" from his waggon he had slandered the defendant company.

Evidence was given that a man named Reed, who said he came from Sequah, ordered bills to be printed and circulated referring in deprecatory terms to Sequah's remedies.

Mr. Pickford raised the question of agency, but his lordship said he would let the matter go to the jury. If Mr. Pickford could prove that the plaintiff's advertisement was issued after Sequah's, and that the plaintiff had said anything like what was alleged, the jury would soon come to a conclusion about the matter—that there were six of one and half-a-dozen of the other.

Evidence was given that at Kidderminster, in January, 1890, the plaintiff, when "lecturing" to a crowd, said that Sequah was really a man named Hartley, who had been in prison. It was also alleged that plaintiff said Sequah's men were "frauds," and his man said they were "impostors." Evidence as to statements in other towns was also given; one witness from Stafford said the plaintiff had the "tail-end of a German band," and that the drum-beating "shook the teeth of everyone." Another witness was asked by his lordship whether the music was played at night during the time they were rubbing the people for rheumatism. He said it was, upon which his lordship observed, "Then they can't hear them howl, you know. (Laughter.) When the music stops the men throw down their crutches and walked away." (Laughter.) Before all the witnesses were called the parties agreed to withdraw a juror.

His Lordship (to the jury): That is what it would have come to, gentlemen—a farthing apiece—if I could have had my way.

Sulphate of Copper Dispute.

On Tuesday, in the City of London Court, before Mr. H. Eardley-Wilmot, Deputy-Judge, the case of Bessler, Walchter & Co. *v.* Duché & Sons was heard. The plaintiffs, chemical merchants, 123 Bishopsgate Street Within, E.C., sought to recover from the defendants, also chemical merchants, of Monument House, E.C., the sum of 24*l.* 15*s.* 4*d.*, the balance of 215*l.* 15*s.* 4*d.*, for a quantity of sulphate of copper supplied to their order. The defendants raised a counter-claim for 24*l.*

Mr. Laney, the plaintiffs' counsel, said a contract was entered into by the parties, dated November 5, 1889, by which the plaintiffs were to buy of the defendants, through Carr & Co., brokers, Liverpool, 30 tons of sulphate of copper in the usual casks, of English make. This was to be supplied in lots of 10 tons per month in May, June, and July, 1890, at 22*l.* 10*s.* per ton. Conditions of sale were included in the contract. By one of the clauses it was agreed that each delivery should be considered a separate contract, and the failure to deliver one instalment was not to vitiate the rest of the contract. The sixth clause stipulated that any dispute as to the contract should be referred to arbitration, the arbitrator to have power to deal with the costs of the matter. The plaintiffs were suing for the balance of account which they alleged was unpaid in respect of the second lot of goods—the June contract. The counter-claim arose out of the May contract. The facts to be adjudicated upon had been agreed by the solicitors on both sides. He would read the statement. It set out that in accordance with the agreement the defendants, on May 9, instructed the brokers to ship the 10 tons of sulphate of copper agreed to be delivered during the month by Messrs. Moss & Co.'s first steamboat, and the brokers instructed the plaintiffs accordingly, the boat sailing on May 15. The goods did not arrive in time for shipment by the vessel nor for the next steamer, which left Liverpool on May 28. By a letter dated May 29 the defendants acknowledged a letter from the brokers of the previous day, and instructed them to ship the May consignment by the succeeding boat, adding, "of course, as you say, delivery will be fulfilled if the goods are put f.o.b. in May, but the bill of lading must show this, and should be dated on the day of putting on board. Please see that this is done." The brokers, on May 30, telegraphed to the defendants, "Moss' steamer sails next Thursday (*i.e.*, June 5), Harker's sails to-day; wire which one." In reply, the defendants said if Harker's was a direct boat they could ship bills in their name to order. The goods, however, had not arrived in Liverpool before Harker's boat sailed that day, and the brokers then directed the plaintiffs to ship the sulphate of copper by Moss's boat, the *Guienne*.

But when the plaintiffs tendered the goods for shipment by the steamer, on June 2, the defendants, or the brokers acting on their instructions, absolutely refused to take delivery on the ground that the tender was too late. Upon this the plaintiffs, on June 2, sold and delivered to other customers of theirs the sulphate of copper, and informed the defendants of that on the following day. On June 2 the market price of sulphate of copper was 2*l.* 8*s.* per ton higher than the price payable by the defendants under the contract. Before the refusal of the goods the defendants had instructed the brokers to procure other sulphate of copper to ship in place of the 10 tons which plaintiffs had not delivered in May. Acting on the defendants' instructions the brokers shipped in the *Guienne* 5 tons of sulphate of copper belonging to the defendants, and another 5 tons which they had previously procured in place of the before-mentioned 10 tons. The price paid by the defendants for the 5 tons they had to buy elsewhere was 2*l.* 8*s.* per ton in excess of the price stated in the contract. The defendants had in June made their claim against the plaintiffs for the 24*l.* extra cost incurred by them for 10 tons shipped. In respect

of this claim two arbitrators with an umpire were appointed. The award of the arbitrators was that the contract had been fulfilled as to the May portion. The plaintiffs had delivered 10 tons of sulphate of copper agreed upon in the respective months of June and July, but the market had then fallen considerably. The defendants deducted from the sum payable by them to the plaintiffs under the contract in respect of the June delivery the sum of 24*l.*, which the defendants by their counter-claim claimed to be entitled to as profit made on the re-sale by the plaintiffs on the May delivery. The terms of the contract were cash, less 4 per cent. discount, within 14 days, or before delivery, if required.

Mr. Rubey said there was no doubt the defendants were in default. They ought to have cleared the May delivery, and they did not. The arbitrator had found the facts against them on that point.

Mr. Laney observed that 24*l.* would be the measure of damage. The plaintiffs were claiming the balance due on the June contract, which they duly carried out by delivering the goods. The defendants did not deny that that balance was unpaid, but they said they were entitled to recover from the plaintiffs that same amount in respect of another matter. That other matter was anterior to the May delivery, and was to be treated as a separate contract The same matter which the defendants were now raising had been disposed of by the arbitrators. The plaintiffs tendered their goods, and the defendants refused to have them, and they were sold. That was clearly included in the arbitration, and therefore the counter-claim could not be sustained.

Mr. Rubey replied that the claim now made by the plaintiffs was never before the arbitrators; therefore his claim was a good one. He would call one of the arbitrators.

Mr. Laney objected to this, as the arbitrator whom it was proposed to call was the one nominated by the defendants, and was, therefore, really and truly a partisan. The arbitrators were mercantile men engaged in the chemical trade, and there could be no doubt the question was included in the award.

The learned Deputy-Judge said he was bound, after careful consideration, to hold that the matter was not before the arbitrators.

Mr. Laney then dealt with the next point, as to whether the defendants were to have the profit of the re-sale of the goods, which, he said, could not be held to belong to the defendants. If the sulphate of copper were the defendants' property, the plaintiffs were bound to account for any profit which might arise, but he submitted the goods never were the defendants'. The contract was for non-specific goods, to be delivered in casks free on board at Liverpool, and the property, he contended, would not pass until the goods were on board. It was admitted that there was no delivery, and that they never passed into the possession of the defendants. They would not have them. There was no such appropriation of the goods as would make them pass. The property remained with the sellers.

The learned Deputy-Judge: There is the fact that they were ready for delivery on board. Does that not show appropriation?

Mr. Laney contended it did not. It required the consent on the part of the defendants before the property passed, and that was never given. If the court was of opinion that the property had passed, then he (the learned counsel) relied on the fact that there was a rescission of the contract by the plaintiffs as soon as they were able to do it.

Mr. Rubey argued that the contract was never rescinded in point of fact, and in point of law it could not be.

The learned Deputy-Judge said he was of opinion that the plaintiffs were not justified in keeping the profit of the re-sale of the sulphate of copper, although he admitted it was an arguable question, and might present itself differently to two minds. Probably the case would go to appeal. He believed the property in the goods had passed to the defendants, and that they were entitled to the profit which had accrued. There would be judgment for the plaintiffs on the claim, and for the defendants on the counter-claim.

Mr. Rubey asked for costs on the higher scale. It was a commercial case, which might have been brought in the High Court, having regard to its importance to the trade.

The learned Deputy-Judge said he had no power to grant the application. He would give leave to appeal.

Judgment accordingly, with costs.

Chemists' Liabilities.

At the County Antrim Assize Court, Belfast, on Monday, March 25, before Mr. Justice Gibson, an appeal was heard in an action brought by Francis J. Kennedy against Mr. Samuel Clotworthy, chemist and druggist, Bridge Street, in the city, to recover damages for the defendant's alleged negligence in the manner in which he sold a small bottle of aquafortis, the cork of which was not properly secured, with the result that the liquid escaped in plaintiff's pocket and caused damage to his clothes and burned his flesh. The Recorder of Belfast had granted a decree for 3*l.*, which plaintiff considered insufficient—hence the appeal. There was a cross-appeal on behalf of Mr. Clotworthy.

Mr. Todd, B.L., was for Mr. Kennedy, and Mr. O'Shaughnessy, Q.C., for Mr. Clotworthy.

Mr. Todd, in opening the case, said it was brought for the small sum of 3*l.*; but it was important for the reason that it was the question of the liability of chemists for selling dangerous fluids in bottles not properly corked and secured. The matter arose in this way:—The defendant had a chemist's shop in Bridge Street, and a short time ago the plaintiff purchased from him a small quantity of aquafortis. It was handed to him by an assistant, who put it up in a bottle with an ordinary cork. Some time afterwards his attention was directed to the fact that his trousers were burned, and that the bottle, which was corked with an ordinary cork instead of a glass stopper, had burst, and, in addition to his trousers being burned, his leg was also somewhat injured.

Francis J. Kennedy, the appellant, proved the purchasing of the bottle, on January 2, from Mr. Clotworthy's assistant. He had not much knowledge of the properties of aquafortis, but he knew that it was used for etching.

To his Lordship: He did not know it would burn the way it did. He bought it about five o'clock in the evening, and at eight his attention was called to his trousers.

To Mr. Todd: At the same time he also bought a small bottle of benzine, and the cork in it was not disturbed. There was no explanation given to him of the dangerous qualities of aquafortis at the time he purchased it.

To Mr. O'Shaughnessy: He did not go home after he bought the bottle, but went to a *conversazione*. He left his overcoat, in which he had placed the bottle, on a form along with others, and up to that time the bottle had received no rough usage whatever. After some time his attention was directed to his trousers, and it occurred to him that it might be caused by the bottle. He then went and examined his coat. He put his hand into the pocket where the bottle was, and his finger, which was slightly cut, was burned. The cork was out of the bottle, and he threw it and the bottle into the ashes.

His Lordship: I never heard of aquafortis affecting corks before.

Mr. O'Shaughnessy (holding up a small bottle): There is a bottle of aquafortis of the same character as that sold to this man. The cork has been in it for ten hours and it is not a bit affected.

His Lordship: He has unfortunately not kept the cork that we might see whether it was affected or not. It is quite possible on his evidence that the cork may have got out of the bottle.

Witness: The cork seemed to be burning and the bottle was fuming. The cork was in the other bottle and was not disturbed in any way at all.

To Mr. O'Shaughnessy: He paid a penny for the aquafortis which he wanted to use for burning corns. He knew therefore that it would burn.

His Lordship: Is it your case, Mr. Kennedy, that you have any complaint about the cork except that the aquafortis burned it?

Witness: Yes. I say that I should have been given the option of taking a glass-stoppered bottle, which I would have done if I had been told of the danger.

Mr. O'Shaughnessy: And you wanted a pennyworth of aquafortis in a glass-stoppered bottle to burn your corns?—Yes. (Laughter.)

In further cross-examination, witness admitted that he had placed his overcoat near the fire during a portion of the time the bottle was in it.

Re-examined by Mr. Todd: Mr. Clotworthy, whom he saw

next morning about his clothes having been destroyed, said he had dismissed the assistant for carelessness and coming in late. Witness told him he would give him until 1 o'clock on Saturday to make him an offer of compensation before taking legal proceedings.

Mr. O'Shaughnessy: As a matter of fact, it was another young man who was dismissed, and not the assistant who sold the bottle.

John Charles Payne, pharmaceutical chemist, gave it as his opinion on oath that it was not safe to sell aquafortis in an ordinary corked bottle. From the appearance of the bottle which had been produced as a sample, he believed the fluid was pure acid.

To his Lordship: If the cork was a very good one and fitted the bottle accurately and got well down into the neck, he believed it would take two or three days before any damage could result. If the cork was not a good one the acid would pass up between the cork and the neck of the bottle and would burn rapidly. It would be quite possible that the cork could come out.

His Lordship: And you consider this a proper way to carry this acid about—in one's pocket?—I would not.

His Lordship: It seems to me to have been a most mad proceeding.

Witness (continuing): If a person was buying aquafortis from me I would refuse to sell it unless in a glass-stoppered bottle, except the person to whom I was selling it took the responsibility of having it the other way. I would not consider it safe to sell it in an ordinary bottle without warning the purchaser. The cost of a glass-stoppered bottle, which would hold an ounce would be 4*d*.

His Lordship: That would be a very large outlay over a pennyworth of aquafortis.

Mr. O'Shaughnessy: My lord, this is purely a question between these pharmaceutical chemists and the men who are not.

Robert Nicholl, pharmaceutical chemist, also gave it in evidence that he would not consider it safe to sell this liquid in a bottle with an ordinary cork.

This closed the case for the appellant.

Sir James H. Haslett, J.P., was examined on behalf of the respondent, and deposed that he had been in the wholesale druggist trade for forty years. It was quite a common thing in the drug trade to sell aquafortis in bottles corked in the ordinary way. It was a very common article of sale.

His Lordship: Is it that kind of article that you would think it necessary to caution a purchaser with regard to?

Witness: It is an article of common use for cleaning brass and things of that sort.

Mr. O'Shaughnessy: If it is corked with ordinary care will it keep for days?—Yes.

Is the only danger from it putting it in excessive heat?—Yes.

His Lordship: Would the heat of a man's pocket have any effect upon it?

Witness: It seems strange that it was some time after he had left the coat off him, with the bottle in the pocket, that he found it burning his flesh.

His Lordship: It does seem strange.

Witness (continuing): The article sold, as far as I can judge, was only the commercial article, and not pure acid.

To Mr. Todd: It would be quite possible that a glass stopper could be blown out of a bottle by the fumes of aquafortis.

Samuel Clotworthy also testified to the circumstance that aquafortis was a usual article of sale, and that it was usually retailed in small bottles, corked with ordinary corks. The transaction was of too common a character to give a warning to customers about it.

His Lordship: Just like gunpowder. There should be no necessity for warning the purchaser.

Witness (to Mr. Todd): We never supply glass stoppers unless we are asked for them.

To Mr. O'Shaughnessy: When Mr. Kennedy came back to our shop to complain we asked him for the bottle and the cork, that we might investigate the matter, and he said he had thrown them away.

A young lad named Skinner deposed that he had been two years in the employment of Mr. Clotworthy. He was the assistant who sold the bottle to Kennedy. He corked it carefully and having labelled it "Poison," he laid it for a while on its side in order that he might see if there was any leakage. It was all secure when he gave it out of the shop.

To Mr. Todd: He did not tell the purchaser anything about its dangerous character.

Mr. Kincaid, manager for Mr. Clotworthy, also deposed that aquafortis was an article commonly sold in the shop. Kennedy told him that he wanted it to burn corns.

This concluded the evidence.

His lordship gave his decision as follows:—This case raises an important question, and it is right I should state shortly the view I take and the exact grounds on which I am going to decide it. The plaintiff's case might have been put in one of two ways. It might have been put as it has been put here—on the ground that it is an intrinsically negligent act on the part of a seller of aquafortis to sell it in a bottle with a cork, instead of with a glass stopper. Or it might have been put in a way it has not been attempted to be put forward, though that might be the truth of the case—that, though it was sold in the ordinary reasonable course of business, it was sold with a cork imperfectly put in by the boy who sold it, and that it was in consequence of the imperfect fitting or fastening of the cork that it came out. I think there is a great deal to be said in favour of that theory. But I think, when this case has been presented in a particular way all through, it would be a very inconvenient thing, when the case comes before the judge, to allow the plaintiff to fall back on a case he has never made.

Mr. Todd: I did cross-examine him as to that.

His Lordship: It is not the way the case was even dreamt of or really put forward. The first point is this: If aquafortis is of a character that it is intrinsically dangerous in a bottle with a cork, then, in my opinion, it is the duty of the seller to sell it either with a glass stopper, or with express notice to the person who purchases it that a cork is a defective and dangerous means of stopping it. Upon this there is practically no conflict of evidence. I do not understand that any of the gentlemen who have been examined pledged their oaths to this, that the three-hours' action of aquafortis upon an ordinary sound cork would make the cork shrivel, or would consume any appreciable part of that cork. It is in evidence by a great number of persons engaged in the retail business that the common way of selling small quantities of aquafortis is in bottles of this description, and that it is not necessary to caution the public that aquafortis is dangerous. Aquafortis is a thing which an ordinary person in the upper ranks of life, at all events, and probably in most ranks of society, knows is a very potent agent, which burns with great intensity, and if the contents escape everyone is aware that in the ordinary sense it will burn. It is very often sold in Belfast, and it would be throwing a very unreasonable and preposterous obligation on the gentlemen engaged in this business if they had to tell everyone that aquafortis is a thing of that character. You might as well have to say that whisky makes people drunk. The case the plaintiff puts forward is that in three hours after he bought this bottle he found that it was burning a portion of his clothes. He says that it was in his coat, which he wore for three-quarters of an hour, and that for two hours the coat was lying on a sofa near the fire. He also says that on looking at the bottle the cork was shrivelled up by the action of the acid. My impression is that the plaintiff is mistaken in that portion of his evidence. I prefer to trust to the general evidence of Sir James H. Haslett, whom I have always known for a candid and truthful man. That evidence disposes of the plaintiff's case, and if the plaintiff has given inaccurate evidence about the appearance of the cork I find it hard to act upon it. Where are the cork and the bottle? I hold that the decision of the court below must be reversed, and the process dismissed with costs, which amount to the sum of 19*s*. I am very sorry that the plaintiff has lost coats, because he appears a very respectable and excellent man.

Rival Battery Companies.—A Further Application.

In the action by the Medical Battery Co. (Limited) against Messrs. Charles & George Spalding (the Magneto-Electric Battery Co.) to restrain the defendants from selling their manufactures as and for the electropathic belts of the plain-

tiffs, a new motion was made on Friday last on behalf of the plaintiffs. The motion came before Mr. Justice Stirling in the Chancery Division; Mr. Aston, Q.C., and Mr. Sebastian again appearing for the plaintiffs and Mr. Graham Hastings, Q.C., for the defendants.

Mr. Aston, Q.C., said his Lordship would remember that a fortnight ago he had moved for interim injunction pending the trial of the action. On that motion the defendants brought a counter-charge against the plaintiffs of having sold as a "featherweight" life belt, or Dr. Moffatt's, a belt not made by the defendants, and the circumstances stated were such that his Lordship thought they required explanation. On that occasion there was presented in court, though not adhibited to the affidavit, a receipt said to have been given to a Miss James, the lady who was said to have purchased the belt in question from the plaintiffs. Upon that matter his Lordship had commented in the decision he gave a fortnight ago. Thereafter the plaintiffs had reason to consider further the matter of that receipt. Accordingly they communicated with the solicitor for the defendants and asked for a copy of it. That was refused. They then asked to be allowed to see it, and that had been practically refused; and under these circumstances notices had been given to the defendants' solicitors that the plaintiffs would apply to the court now to ask that the defendants might be ordered to produce forthwith the receipt given to Miss Margaret Helen James, for the 5*s.* 6*d.* paid by her for the purchase of a belt from the plaintiffs on December 17 last, referred to in her affidavit sworn on February 11, and that the plaintiffs be at liberty to inspect the said receipt and take copies thereof. He thought that was a very reasonable application.

His Lordship: Why is the receipt not produced?

Mr. Aston: That is what I want to know, my Lord.

Mr. Hastings said the plaintiffs would get their affidavit of documents, and with that they would get everything.

His Lordship: The motion is an unusual one, very unusual; but why the document should not be produced I cannot imagine.

Mr. Hastings: It is perfectly regular.

Mr. Aston said his Lordship would see that upon the order made by this court a fortnight ago, the plaintiffs might think it right to take further proceedings.

His Lordship: Yes.

Mr. Aston: But under present circumstances they could not verify the evidence given before this court.

His Lordship: Has the order been drawn up yet?

Mr. Aston: No.

His Lordship: Well then, I will direct that document to be mentioned in the order, because it certainly was produced before me.

Mr. Hastings said that if his learned friend had asked for it during the hearing of the former motion, he would not have objected.

His Lordship: That is the difficulty. It ought to be included in the order.

Mr. Aston said that would suit his purpose very well. He reminded his lordship that the reason why no order was made on the previous motion was that the plaintiffs had not sufficiently disproved the allegation contained in Miss James's affidavit. Now, Mr. Flint, the solicitor for the plaintiffs, had made an affidavit upon the present motion, in which he stated that Miss James did not exhibit to her affidavit the receipt given by the plaintiffs' shopman; that he had given notice to the defendants to produce the receipt on the hearing of the former motion; that it was produced, seen by the judge, and counsel on both sides, and was referred to as part of the evidence.

His Lordship: Undoubtedly; and ought to be entered, therefore, on the order.

Mr. Hastings: But my friend did not ask for that.

Mr. Aston resumed the reading of Mr. Flint's affidavit, which went on to state that the plaintiffs were considering the advisableness of appealing against the decision of March 6; but they were unable to identify the shopman who sold the belt to Miss James, or trace the circumstances in which it was sold, and, therefore, were unable to decide whether it would be advisable to appeal. On March 12, Mr. Flint wrote to Mr. Wyman Smart, the defendants' agent, asking for a copy of the receipt, and received in reply a letter stating that "the receipt you mention is not in evidence, and it will be premature to furnish you with a copy now. I cannot, therefore, advise my client to let you have a copy except in the regular course and when you are entitled to one." Mr. Flint's clerk was then sent to Mr. Smart's office to ask inspection of the receipt, which was declined, and then Mr. Flint wrote again, stating that if by March 16 inspection was not allowed, he would apply to the court by motion. Mr. Smart replied on March 13, stating that he would be "happy to produce the document at the proper time, and when you are entitled to inspect it." Mr. Flint's affidavit proceeded to say that the plaintiffs were unable to place their case before the Court of Appeal without previous examination of the receipt.

Mr. Hastings then read the affidavit made in reply, by Mr. Henry S. Wood, acting with Mr. Smart for the defendants. In it Mr. Wood denied that the receipt was put in evidence.

His Lordship: I do not agree with that. It was handed up to me. I did not mention it in my judgment, but it was there all the same.

Mr. Hastings admitted that that was a mistake. Mr. Wood's affidavit went on to state that when Mr. Flint's clerk called to see the receipt he (Mr. Wood) had learned that the plaintiffs contemplated appealing against the decision of the court on the former motion, and he accordingly suggested that inspection of the receipt was wanted for the purposes of the appeal; that the clerk said it was not so, but that they were undecided whether they would go on with the action, and that if they were satisfied that the receipt was genuine the action would probably be discontinued. Mr. Wood then told the clerk that he might take it that the receipt was genuine, but that he could not let him see it. The receipt was a duplicate, made by means of carbonised paper; that the plaintiffs, therefore, had the original, and the defendants only the duplicate.

His Lordship: That is in accordance with my recollection of the document.

Mr. Aston: That is what we want to see it for, so as to compare it with the original. He then read a reply to Mr. Wood's affidavit by Mr. Smart's clerk, denying that he told Mr. Wood that the receipt was not wanted for the appeal, or that the action might be stopped. He had no authority to do so. He even asked to be allowed only to take the printed number on the receipt, and was refused. Mr. Aston then asked his lordship to make the order, saying that if they saw the receipt and could trace it, they would be able to come to a conclusion at once as to the appeal.

Mr. Sebastian followed briefly on the same side, and

His Lordship said: I think this is a very reasonable application, and I cannot understand why it is not acceded to. I thought the evidence on the trial of the motion was clear. The receipt was produced; I saw it. I did not say so, but I looked upon it as corroboratory of the statement that the sale and purchase had taken place as stated in the affidavit; and it ought to appear in the order. It was in evidence, certainly, and nobody objected to it being handed up.

Mr. Sebastian then pointed out that the receipt was admitted to be in the possession of the defendants, and that his lordship had power to make the order.

Mr. Hastings then addressed his lordship for the defendants. He first contended that there was no jurisdiction in this court to make the order asked for. He also argued that this was an idle application. The plaintiffs themselves had the original. That was sworn to, and the plaintiffs did not deny it. In Mr. Wood's affidavit they had it that he told Mr. Smart's clerk that the receipt was a duplicate on carbonised paper, and that he had only a duplicate, the plaintiffs having the original.

Mr. Aston: We deny that we have the original.

Mr. Hastings said he only knew what his friend had read, and in that there was no denial. It was a most idle application altogether.

His Lordship: I think it is a most idle thing for you to refuse it.

Mr. Hastings: But I am not the moving party.

His Lordship: You keep it back.

Mr. Hastings: But we are not bound to produce——

His Lordship said the receipt was, no doubt, not made an exhibit to Miss James's affidavit, but it was put in and shown to the Court.

Mr. Hastings replied that he did not dispute that, but

that very circumstance put his learned friend out of court, because it was his business to have gone to the registrar, and asked that it be put into the order. His (Mr. Hastings's) clients were not bound to produce it, even under the notice which was given.

His Lordship: Perhaps not, but you did.

Mr. Hastings said his clients did produce it in *bona-fides* in this court, and it was scanned by his Lordship, and by his learned friends on the other side, and it showed "one belt, 5*s*. 6*d*."

His Lordship: Yes, and with an important addition at the foot. There were there two letters which may be very material.

Mr. Hastings said that that might be, but the other side saw it at the time. There was a good deal more that he could not refer to because it was not in evidence; but the fact remained that this application was a perfectly idle one, because they might have got what they wanted by asking the Registrar to put it into the order, and they could have got the order drawn up more than a week before they even served this notice of motion.

His Lordship: Are you ready to give them a copy now?

Mr. Hastings replied that he was not going to give them anything unless they were entitled to it. He proceeded to refer to the rules in order to support his contention that there was no jurisdiction in his Lordship to make the order asked for. The receipt in question was not a matter relating to the action. If it were, he submitted, the rules applied; but in respect that the receipt did not arise out of the plaintiffs' case but out of the counter-charge in the defence, the rules did not apply so as to vest the court with power to make the order. He asked his Lordship to say that this was a most unjustifiable motion, and one that ought never to have been made, and to dismiss it with costs.

Mr. Justice Stirling said he was ready to make an order that the document in question should be produced to the officer of the court when he drew up the order made the other day. The order would be drawn up forthwith.

Mr. Aston: That will do for me.

Mr. Justice Stirling: Very well, then. The motion had better stand over for the present, with liberty to apply.

NEW COMPANIES.

Feltoe & Smith (Limited).—Capital, 3,000*l*., in 1*l*. shares. Object, to adopt an agreement, dated March 9, 1891, between F. F. D. Feltoe, of the one part, and S Fowler, of the other part, for the purchase of the goodwill of the business as vendor of lime-juice cordial, now carried on at 27 Albemarle Street, Middlesex, and to carry on the same. The first subscribers, who take one share each, are:—H. Fortnum, 19 Hatchard Road, Upper Holloway, clerk; Thomas Blunden, 21 Gironde Road, Walham Green, cellarman; S. A. Smith, Clovelly House, Lee, accountant; P. T. Travers, 29 Albemarle Street, chartered accountant; J. W. Priest, 234 Shirland Road, W., clerk; L. W. N. Hawkins, 44 Handen Road, Lee, clerk; S. Fowler, 24 Flint Street, S.E., clerk. The first and sole directors are Francis F. D. Feltoe and S. A. Smith.

New Patent Food Warmer Company (Limited).—Capital 5,000*l*. in 1*l*. shares, 1,000 of which rank as vendor's fully paid-up shares. Object, to acquire the patent food-warmer business now carried on by Henry Dunsford, of 82 and 84 Duke Street, Liverpool, and to work same. The first subscribers are:—W. F. Dunsford, South Castle Street, Liverpool, registration agent, 100 shares; H. Emmerson, 17 Picton Road, Wavertree, manager, 1 share; H. C. Platt, 10 St. Mary Axe, forwarding agent, 100 shares; A. B. Dunsford, St. George's Road, New Brighton, 100 shares; Thomas Smith, 17 Constitution Hill, Birmingham, ironmonger, 25 shares; S. Calvert, 170 Grove Street, Liverpool, clerk, 1 share; H. Dunsford, 82 and 84 Duke Street, Liverpool, wholesale druggist, 1 share. The managing director is Henry Dunsford, at a salary of 100*l*. per annum.

The Arbey Wood Wool-packing Company (Limited).—Capital 50,000*l*. in 5*l*. shares. Object, to acquire the undertaking of the Arbey Wood Wool Company (Limited), and to develop and extend the same. The first subscribers, who take one share each, are:—P. Meadows-Taylor, 29 Threadneedle Street, E.C.; W. Marrian, 109 Fenchurch Street, E.C.; E. Fockel, 15 Silk Street; E. R. Mellor, 17 Clarence Road, Kew Gardens; A. C. Kendrick, 8 Richmond Road, Shepherd's Bush; W. F. Johnson, 29 Sandford Terrace, Stoke Newington; M. R. Chapple, 27 Spenham Road, Brixton, S.W. There shall not be less than three nor more than seven directors. The first are Dr. G. B. Clark, M.P., H. S. Foster, W. Marrian, and P. M. Taylor. Qualification, 250*l*. Remuneration, 400*l*., with an additional 100*l*. for each 1 per cent. after 10 per cent. dividend.

Bowman, Thompson & Co. (Limited).—Capital 80,060*l*., divided into 8,000 ordinary and 6 deferred shares of 10*l*. each, to carry into effect an agreement between F. H. Bowman and others, dated January 30, 1891, and a supplementary agreement, dated March 17, 1891, between the same parties, and to carry on business as chemical manufacturers in all its branches. The first subscribers, who take one share each, are:—F. H. Bowman, West Mount, Halifax, cotton-spinner; W. Thompson, Blackburn, cotton manufacturer; J. W. M'Crossan, Rohy, gentleman; T. S. Sheard, Harrington Street, Liverpool, chartered accountant; C. F. Johnson, Seaforth, gentleman; J. G. Howard, Liverpool, secretary; H. E. Eastwood, Harrington Street, Liverpool, accountant. The number of directors shall not be more than seven or less than two, and the first are the two first subscribers to the memorandum of association. Registered office, 13 Harrington Street, Liverpool.

The Twin Bottle and Bottling Company (Limited).—Capital 5,000*l*., of 1*l*. each. Object, to carry on the business of aërated and mineral water manufacturers and dealers, &c., box and bottle manufacturers and dealers, and manufacturers of machines for bottling. The first subscribers, who take one share each, are:—S. Smith, Walthamstow, manufacturer; J. C. Sworder, Bimtingford, manufacturer; E. A. Fuller, 80 Coleman Street, E.C., solicitor; E. F. Andrewes, 101 Leadenhall Street, E.C., export agent; T. W. Carine, 19 Laurence Pountney Lane, E.C., wholesale druggist; C. G. Cudby, 50 Narcissus Road, West Hampstead, N.W., solicitor; H. H. Fox, 36 Gledstanes Road, W., solicitor's clerk. Registered without articles of association. The office of the company is at 101 Leadenhall Street, E.C.

Cureoil Notesco Syndicate.—Capital 1,300*l*., in 10*l*. shares. Object, to acquire the goodwill and assets of the business of A. Z. Germains in certain articles known as "Notesco" medicine and liniment, soap, and lozenge, and to carry on the same. The first subscribers, who take one share each, are:—F. Windham, Fulham, engineer; S. Shuttleworth, Putney, advertising expert; A. S. Morris, 8 Pancras Lane, E.C., solicitor; F. Short, 56 Reedworth Street, S.E., gentleman; Mary E. Hughes, Lewisham; J. W. Ife, Lewisham, clerk; J. Bulucrosan, Lewisham, merchant; J. F. Peters, Lewisham, theatrical agent; A. S. Simner, Sutton, architect. Registered without articles of association.

Gazette.

PARTNERSHIPS DISSOLVED.

Fry, S. H., & Hayman, A. E., under the style of the Fry Manufacturing Company, Chandos Street, Strand, and Kingston-on-Thames, photographic dry-plate manufacturers, &c.

Greeff, A. & H., Mincing Lane, City, merchants.

Raitt & Crisp, Southside, Clapham Common, S.W., physicians and surgeons.

Trent Brothers, Baker's Row, Whitechapel, shopfitters.

THE BANKRUPTCY ACTS, 1883 AND 1890.

Receiving Orders.

Foggin, John, Newcastle-on-Tyne, surgeon.

Joel, Isaac B., Drapers' Gardens, City, and Devonshire Terrace, Bayswater, promoter of the Automatic Photographic Company and the Foreign and Automatic Photographic Company.

Webb, William David, Castleford, **Wood, John Robinson**, Knottingley, and **Turney, William George**, Knottingley, trading as Webb & Wood, Castleford, glass-bottle manufacturers.

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ELEMENTARY PHARMACEUTICAL LATIN.

MR. JOSEPH INCE is always so popular, especially with young chemists, that the attenuated audience which met at the rooms of the Chemists' Assistants' Association on March 19 was somewhat of a surprise to all concerned. It was thought probable that the subject of the lecture was not considered tempting enough to young men who had got through their Preliminary examination.

Mr. Ince illustrated his lecture by eight large diagrams used by him in demonstrating Latin construction to his students. They were first prepared to obviate the necessity of tediously writing long sentences upon the board, and had been found so satisfactory that he recommended them to other teachers as models which could, of course, be altered or amplified according to judgment. He was convinced that mere oral teaching was of little use, as many students did not know how to spell Latin correctly. The diagrams formed the text of the lecture, and were explained and enlarged upon in turn. They were as follows:—

Diagram I.

℞ Recipe.
(*a*) Quantity in accusative.
Ingredient in genitive.
℞ Pulveris rhei drachmam.
Aquæ destillatæ unciam.
(*b*) An adjective agrees with its own noun.
Spiritus ammoniæ aromaticus.
Spiritus ammoniæ fœtidus.
Pulvis ipecacuanhæ compositus.
℞ Tincturæ chloroformi compositæ,
Tincturæ cardamomi compositæ,
āā drachmas duas.
Extractum cinchonæ rubræ.
Extractum cinchonæ liquidum.
(*c*) Neuter nouns in *a*.
Cataplasma, ātis. Plural cataplasmāta.
Enēma, ātis. Plural enēmāta.
Gargarisma, ātis. Plural gargarismāta.
Physostigma, ātis. Plural physostigmāta.
Theobrōma, ātis [not theobrōmæ, as U.S.P.].
Feminine nouns.
Alvus, i (no plural).
(In English, plural is chiefly used—"The bowels.")
Crystallus, i, and
(*d*) Medical words ending in *io*.

(*a*) The government of the verb "Recipe" only extends to the actual prescription and ends after the abbreviation or sign. Beyond this point a new sentence is begun, with the noun in the nominative. Directions appended to a prescription form an independent sentence. The phrases "drachmam unam" and "unciam unam" are frequently used, but the numeral adjective affords an instance of redundancy, and is quite unnecessary.

(*b*) The agreement of the adjective with its own noun is shown in the official title for spirit of sal volatile. It is the spirit which is aromatic or fœtid, not the ammonia. And so we note that it is the liquid extract of cinchona, and not the extract of liquid conchona.

(*c*) These neuter words in "a" are simply Greek titles in Roman letters, and follow the Greek rule.

(*d*) Feminine words ending in *io*.
Examples—Confectio, embrocatio, injectio, lotio, solutio, sudatio, and venæsectio.
There is no exception to this rule in medical Latin.

Diagram II.

VERBS.

Active and Passive Voice.

Active with Accusative.
Sumat æger haustum.
Capiat ægra pilulam.
Mitte uncias octo.

Passive.

Accusative changed into Nominative.
Haustus sumatur.
Pilula capiatur.
Unciæ octo mittantur.

Sum.
Same case after as before.
Sit dosis.
Sint pilulæ parvæ.
Si tussis molesta sit.

Fio.
Passive meaning. Active form in *o*.
Fiat massa.
Fiant pilulæ duodecim.
Misce, fiat mistura.

Passive.

Participles in "dus."

Used as adjectives and agreeing with substantives.

Haustus	Capiendus	Capiendus
Massa	Dividendus	Dividenda
Unguentum	Illinendus	Illinendum
Cataplasma	Imponendus	Imponendum
Embrocatio	Infricandus	Infricanda
Pilulæ	Mittendus	Mittendæ
Dosis	Repetendus	Repetenda
Scrupuli duo	Sumendus	Sumendi
Gargarisma	Usurpandus	Usurpandum
	Uendus, a, um	

This diagram is self-explanatory. The chief student difficulty is with the use of the verb "Fio," which, ending in *o*, is mistaken for an active verb followed by an accusative; further, the English translation is in the active voice. A prescription says, "Fiant *pilulæ*"—let pills be made; we say, "Make twenty-four pills,"—Fac *pilulas* quatuor et viginti.

Diagram III.

In, meaning "in" = ablative.
In phialâ. In scatulâ.
In folio argenti.
In, meaning "into" = accusative.
In pilulas divide massam.
Serva in phialâ.
In (*i.e.*, in some vehicle) = e or ex.
E vehiculo idoneo.
Ex aquæ cyatho.
In, meaning "after" = post, accusative.
Post horam = In an hour.
Dimidium statim sumatur, reliquum post horas duas = Let half be taken immediately, the remainder in two hours.
Cum, c. Ablative.
Cum cibo. Cum cibis.
Semi, adjective indeclinable. Half.
Semis, issis = the half.
Ad, preposition = up to. Accusative.
The chief difficulty in this diagram is to clearly distinguish between the indeclinable *semi*, as in semi-uncia, semi-granum, and the masculine noun *semis*.

Diagram IV.

N.	duo	duæ	duo.
Acc.	duos	duas	duo.
Dat. and abl.	duobus	duabus	duobus.

Sing. cochleare, is Dat. and abl. cochleari
Plural cochlearia Dat. and abl. cochlearibus.
N. and A. tres tria.
G. trium.
Dat. and abl. tribus.

Haustus tres,	doses tres,	grana tria,
M.	F.	N.
Decem	undecim	sedecim.
em	im	im.
Viginti	undeviginti	duodeviginti.
i, 20	i, 19	i, 18
Triginta	undetriginta	duo detriginta.
a, 30	a, 29	a, 28

Centum, indeclinable = 100.
Mitte pilulas centum.
Ducenti, æ, a = 200.
Trecenti = 300. Sexcenti = 600. Quadringenti = 400.
Quingenti = 500.
Suppositoria quingenta.

Miscellanea.

Collyrium, ia.
Congius, ium, ios.
Cyathus. C. vinosus.
Dosis, dosin, doses. Fem.
Granum, i. Grana duo.

Though the matter of this diagram is purely elementary, Mr. Ince would congratulate the teacher who gets one-half of it clearly impressed on the student's mind, and *producibly* remembered.

DIAGRAM V.

Latin grain weights.

℞ Recipe, cum Accusative.
1 = Granum, grana N., duo, tria.
$\frac{1}{2}$ = Grani dimidium or semi-granum.
$1\frac{1}{2}$ = Granum cum semisse.
$\frac{1}{3}$ = Grani partem tertiam.
$\frac{1}{4}$ = Grani quadrantem or grani partem quartam.
$\frac{3}{4}$ = Grani tres quadrantes.
$\frac{2}{3}$ = „ partes tertias duas.
$\frac{1}{6}$ = „ partem sextam.
$\frac{2}{5}$ = „ partes quintas duas.
$\frac{3}{5}$ = „ partes quintas tres.
$\frac{3}{8}$ = „ partes octavas sex.
$\frac{1}{12}$ = „ partem duodecimam.
$\frac{1}{16}$ = „ partem sextam decimam.
$\frac{1}{20}$ = „ partem vicesimam.

DIAGRAM VI.

Time—de tempore.
Minutum, i, minuta, minute.
Minuta quinque = five minutes.
Horæ.
Pars sexta = ten minutes.
Pars tertia = twenty minutes.
Minuta quinque et viginti = twenty-five minutes.
Minuta quinque et trigiuta = thirty-five minutes.
Minuta quadraginta = forty minutes.
Minuta quinquaginta = fifty minutes.
Hora = an hour.
Horâ unâ = one o'clock.
„ secundâ = two o'clock.
&c.
Every, each = omni, quâque.
Omni tertiâ horâ,
Tertiâ quâque horâ, in singular.
Every three hours = Tertiis horis, in plural.
Horam = for one hour.
Horas duas = for two hours.

The authorised version of the Bible is an exact rendering of the Latin expression of time: "And he went out about the third hour; again he went out about the sixth and ninth hour," &c. "Yesterday at the seventh hour the fever left him."

DIAGRAM VII.

Ablative Absolute.

Fiat haustus invadente paroxysmo sumendus.
Fiat mistura urgenti flatu sumenda.
Cujus capiat cochleare amplum acido imfestante.
Fiat haustus urgenti dolore capiendus.
Vomitû finito.
Tum decantato liquorè exprime.
Cæteris paribus.
D.V. etc.
Applicetur embrocatio cephalagiâ instanti.
Dosi post horas duas repitîtâ.
Linimento diligenter nocte maneque infricato.

DIAGRAM VIII.

Gerund, gerundive. Ablative absolute.
Fiat pilula ter die sumenda.
Fiant pilulæ duæ ter die sumendæ.
Calore spissatus liquor.
Liquore calore spissato.
Pulvere bene trito.
Pulverem bene terendo.
Phialâ prius agitatâ.
Phialam bene agitando.
Mitte embrocationem sæpe utendam.
Embrocatio sæpe utenda.
Sumat cochleare amplum misturæ sequentis.
Sæpe embrocatione utendo.
Embrocationem sæpe applicando.
Lotio ter in die utenda.
Lotione ter in die utendâ.
Lotione ter in die utendo.
Superhibendo haustum.
Augendo vel diminuendo dosin.
Sumat cochleare minimum augendo dosin ad minima duo.

Nom. Omnia bene miscenda.
Accus. Omnia bene miscendo.

The two last diagrams seem to present to the non-classical student insurmountable difficulties. Much oral explanation and illustration is necessary if this part of the subject, so necessary to the understanding of autograph prescriptions, is to be properly understood.

In medicine this ablative absolute is nearly always a noun united with an adjective, or a participle used as such, standing by itself in the sentence, capable of being removed without altering the construction of the rest of the sentence; always an additional remark by way of comment or special instruction, and always capable of being written in a bracket. The difficulty lies in that the English translation seldom corresponds word for word with the Latin. There are two languages, Latin and English, and they are idiomatic and distinct.

The mysterious letters D.V. (so invariably connected with sermon announcements) = Deo volente—"God being willing," or better, "By the permission of God."

It must be explained that in the last diagram the gerund is the active form of a verb, and governs the same case as the verb from which it is derived. This is most frequently the accusative, but the ablative if *utor* is employed.

The gerundive, of which capiendus and dividendus may be cited as examples, is in the passive voice generally translated "to be." It never governs anything, but is always in agreement with the noun, just as an adjective.

e.g. Pilulæ duæ sumendæ—two pills to be taken. Lotio ter in die utenda—the lotion to be used three times a day.

Mr. Ince advised the student to make himself thoroughly master of these preliminaries. There were many serviceable compendiums of words and phrases extant, but none of them would teach him the art of deciphering the handwriting peculiar to the medical profession. He would open two Government schools—one to teach the clergy how to read, and the other to teach the prescriber how to write.

Time did not permit of Mr. Ince taking up the subject of "Neo-Latin," which is reserved for a future occasion.

The discussion, which was of a conversational nature, centred mainly round the use of the names "Adeps lanæ" and "Adeps lanæ hydrous" in the Addendum. Mr. Elliot complained that he could never get the former, though he repeatedly ordered it; the wholesale houses sent him tins labelled "Lanoline anhydrous," or "Adeps lanæ (lanoline anhydrous)." Other speakers were of opinion that medical men who ordered adeps lanæ meant lanoline, and not the anhydrous preparation. Of course it is very necessary to distinguish lanoline, anhydrous lanoline, and unguentum lanolini. A good deal of confusion and difficulty would have been avoided, it was thought, if the well-established preparation named had been adopted for the Addendum, instead of the above neo-Latin terms, which are not above objection on the score of correctness even.

WHITWORTH RED BOTTLE.

SOMETIMES we have to go a good way from home to learn a thing which might be picked up nearer. There has been an inquiry at Philadelphia regarding Whitworth's liniment. It was brought before the College of Pharmacy there, and was referred to Mr. McIntyre, who at the last meeting, as reported in the *American Journal of Pharmacy*, gave the following formula from Dick's "Encyclopædia":—

Oil of thyme	4 drachms
Tincture of myrrh	2 oz.
„ camphor	2 drachms
Compound spirit of lavender	2 oz.
Alcohol	8 „

(All fluid measure.)

Mix.—25 drops two, three, or four times a day.

RED BOTTLE, WHITWORTH'S (from an old recipe-book):—

Opium in powder	120 grs.
White Castile soap	60 „
Camphor	1 tr. oz.
Oil of origanum	1 fl. ʒ
„ caraway	2 „
Alcohol	12 „

Mix, macerate with occasional agitation seven days, and filter.

Mr. Robert England gave the following formula, furnished by the late Dr. Jas. Bond, who originally introduced it:—

Stronger water of ammonia	ʒij.
Olive oil	ʒij.
Tincture of opium	ʒij.
Oil of cinnamon	ʒiij.
„ sassafras	ʒiij.

From these formulæ it will be seen that they must not be confounded, as they are so entirely different: one intended for internal use, and the others for liniments and quite active.

So far our American friend. Whitworth Red Bottle originated, we have always understood, in Whitworth, Lancs, Eng., and some years ago we published a number of formulæ used in that district. It will be advantageous and useful to reprint these now. The first two formulæ came to us from the Whitworth district:—

1.

	Oz.
Camphor	6
Oil of origanum	6
Alkanet root	1
Methylated spirit..	80

Macerate a few days, and filter.

2.

Camphor..	2 oz.
Compound tincture of lavender	1 „
Oil of origanum	1 „
Methylated spirit to	1 pint

Mix.

It is stated that this "bottle" is used externally and internally. One correspondent objected to this on account of the methylated spirit (and so would the Excise), he preferring the following:—

3.

Oil of origanum	1 oz.
Brandy, s.g. 0 920	1 pint
Powdered cochineal, sufficient to colour.	

Macerate for a few days, and filter. The dose generally taken is 5 to 20 drops.

4.

Oil of origanum..	2 drachms
Compound tincture of lavender ..	1 oz.
Rectified spirit	2 „

Mix.

The label which is generally used is as follows:—

The best Rubbing Bottle in the World is the
WHITWORTH
RED BOTTLE.
The Whitworth Red Bottle has been used for the last fifty years for Broken Legs, Arms, Sprains, Bruises, Rheumatism, Stiff Joints, Lumbago, Gout, Stiff Neck, Chilblains, Neuralgia, Sore Throats, Black Eyes, Broken Heads, &c.
NAME AND ADDRESS OF SELLER.
In BOTTLES, 6d., 1s., and 2s. 6d. each.

This label would necessitate a patent-medicine stamp, and the use of methylated spirit is illegal except the Excise authorise. The American formulæ are peculiar in containing opium, and the "original" one has distinctive characteristics in respect to being ammoniacal and containing oil of sassafras. The latter shows it to be purely American. Is the bottle American or English? We should be glad to have opinions on that question.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1890, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

"ASPINALLS' ENAMEL," and picture of lady painting case on table; for an enamel in the nature of paint. By H. E. Aspinall, trading as Aspinall, Aspinall & Co., New Cross, London. 153,719.

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Sketch of a lion rampant carrying crown; for mineral and aërated waters. By the Gordon Hotels (Limited), 25 Cockspur Street, London. 152,225.

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"CENTENNIAL"; for soap dentifrices. By F. Lepper, 56 Great Marlborough Street, London. 153,064.

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(*From the Trade Marks Journal, March* 25, 1891.)

"HOPPER'S SHEPHERD'S FRIEND"; for foot-rot in sheep. By T. H. Connor, 39 Market Place, Doncaster. 153,423.

"CUTICULINE SALVE," and other wording and signature, on circular label; for a salve for extracting corns, &c. By C. F. Henry, 1 Brandon Terrace, Edinburgh. 153,384.

"RAINBOIC REMEDIES"; for patent medicines. By E. Bella, 113 Charing Cross Road, W.C. 153,527.

"WARRINGTON CHEMICAL COMPANY"; for chemical substances used in medicine and pharmacy. By J. Dunn, P. Dunn, and D. V. Stuart, trading as The Warrington Chemical Company, Warrington. 153,542.

"BRASINE" and signature; for aërated beverage. By Beaufoy & Co., South Lambeth. 151,041.

"M. A. HADLEY" and monogram; for mineral and aërated waters. By M. A. Hadley, Round Green, Oldbury 153,598.

"GEORGE YOUNG"; for mineral and aërated waters. By G. Young, Morpeth. 153,970.

"THE DUBLIN MINERAL WATER COMPANY"; for mineral and aërated waters. By A. F. German, trading as The Dublin Mineral-water Company, 30 Lower Ormond Quay, Dublin. 154,303.

"DAISY," and picture of the flower; for toilet soap. By E. J. Ellis, trading as London Chemical Company, Bow Bridge Wharf, E. 91,796.

"CROSFIELD'S PERFECTION SOAP," and picture of three children at washing; for perfumed soap. By J. Crosfield & Sons, Warrington. 151,318.

"ROBIN HOOD," and illustration; for perfumery and toilet articles. By J. Humphreys, 19 Newstead Grove, Nottingham. 151,694.

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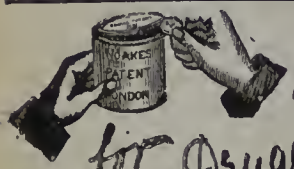

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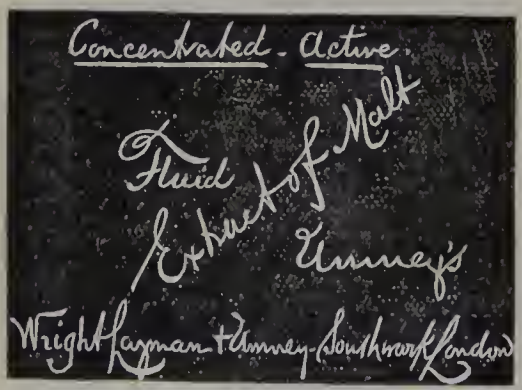
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Fletchers' Concentrated Liquors
ARE THE CHEAPEST BECAUSE THEY ARE THE BEST.

EDITORIAL NOTES.

THE PHARMACY BILL IN PARLIAMENT.

THE abundantly discussed Pharmacy Bill is now fairly floated on its Parliamentary voyage. It was launched on Friday night last by Sir Henry Roscoe, who then obtained leave to have it read a first time, and it was distributed in printed form on Monday last. We observe that its advocate has set it down for second reading on April 15, a date which will be peculiarly appropriate for a grand demonstration in its honour in the House of Commons, as it was on April 15, 1841—fifty years ago—that the resolution creating the Pharmaceutical Society was passed at the Crown and Anchor, in the Strand.

Besides Sir H. Roscoe, the member for South Manchester, the Bill is backed by Dr. Farquharson, member for West Aberdeenshire, Sir Guyer Hunter, member for Central Hackney, Sir Trevor Lawrence, member for Reigate division of Surrey, and Mr. H. S. King, one of the members for Hull. These are respectable if not exceptionally powerful auspices; but the group named does not comprise anyone from whom can be expected the motive-power which secured the rapid success of the Irish Pharmacy Act of last year.

No Pharmacy Bill has ever been "boomed" in the trade to the extent which has characterised the preliminary proceedings in regard to this measure. This is the seventh Bill which has been drafted by the Pharmaceutical Council since 1881, and the fourth which has been submitted to Parliament. It can hardly be said that the House of Commons has on any of these occasions had fairly before it any issue in which pharmacy as a trade has been to any great extent interested. The four Bills referred to aimed only to modify in some respects the nature of the examinations authorised

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, MARCH 28, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

OFFICES: 42 CANNON ST., LONDON, E.C.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 12 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & CO. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON, N.—Good residential locality; Retail and Dispensing Business of good class; returns last year £727, increasing; large double-fronted shop and good stock; good house attached; price about £720.

2.—LONDON.—First-class position; all high-class trade; situate in one of the best positions; returns £1,200; vendor is retiring in consequence of ill-health; particulars on application.

3.—LONDON, W.—Busy locality; a good-class Business; returns over £500 yearly; *very profitable* Prescribing; well fitted shop and good stock; good sized house, with private entrance; held at low rental; price £450, or good offer considered.

4.—LONDON (East District).—Capital business neighbourhood; returns £950, rapidly increasing; pretty shop and comfortable house; low rental; price about £900.

5.—DEATH VACANCY (LONDON, N.).—Good-class Retail and Dispensing Business; returns nearly £900 yearly; good business position; handsome shop and good stock; large house; full particulars with London reference.

6.—SOUTH COAST (Watering-place).—High-class Dispensing Business; returns average £900 yearly with *first-class profits*; handsome pharmacy and very superior house; purchaser must possess the Major qualification; full particulars with London reference.

7.—SURREY.—Old-established Business, Dispensing and Prescribing; no heavy trade; returns about £900; *very good profits*; shop situate in main street; convenient house on low rental; immediate purchaser will be met on liberal terms.

8.—HOME COUNTY.—Mixed Agricultural and Family; returns £1,650 yearly, *very profitable*; very good house, with garden; capital roomy business premises, held on lease; small premium, and valuation of stock and fixtures.

9.—MIDLANDS.—Good-class Dispensing and Retail; returns about £800 yearly; capital position for the extension of business into Agricultural trade; shop is handsome, and good stock; house large and convenient, pretty garden; price £700.

10.—HUDDERSFIELD (near).—Retail and Prescribing Business; returns £700 yearly; *very profitable*, above the average; handsomely-fitted shop; low rental; price £600.

11.—EASTERN COUNTY.—Business of good class; returns £500 yearly, *all full prices*; shop fitted with mahogany, stock very good; rent nominal; small house and garden; price £300.

12.—NORTH OF ENGLAND.—Good town; Retail and Dispensing Business; returns £930, *with good profits*; shop is large, double-fronted, and in good position; good 8-roomed house; vendor, retiring from business, will accept valuation of stock and fixtures.

13.—DEATH VACANCY (DEVON).—Old-established Business for immediate disposal; profitable class of trade; situate in main street of a large town; rent low; about £450 required.

14.—ESSEX.—Good business locality; Retail and Dispensing of good class; returns £900, increasing yearly; pretty shop and comfortable house; about £900 required.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,
VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

LANCASHIRE.—Death vacancy; Prescribing and Retail; in good position, returns £7 to £10 week, can be much increased; valuation about £300.

BIRMINGHAM.—Prescribing, Retail, and own Specialities; no patents; returns £450; good house; net profit £200; price £300.

WALES.—Unopposed Retail; capital opening for Dentistry; returns over £400; rent £16 on lease; price about £300.

WEST OF ENGLAND.—Good-class Country Retail, with Gilbey's agency; returns £1,300; excellent house, garden, &c.; price about £800.

SURREY.—Dispensing and Light Retail; returns £750, increasing; price about £700.

ESSEX.—Unopposed Retail; returns, with Gilbey's Agency, £550; rent £22; price £250.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

GENUINE Retail; good position, in thickly-populated neighbourhood; shop well fitted; satisfactory reasons for disposal; returns last year £459; price £250. Apply, B. H., care of Hirst, Brooke, & Hirst, Leeds.

DEATH VACANCY.—For disposal, owing to death of proprietor, old-established Prescribing and Retail Business in a thriving village near Manchester; stock and fixtures at valuation. J. Knight, 2 John Dalton Street, Manchester.

£150.—**UNOPPOSED BUSINESS.**—No chemist within a mile; good prices Dispensing and Prescribing; capital opening for Dentistry; house with private entrance; well stocked; fitted in mahogany; double-fronted shop. Apply, by letter, "Dens," 17 Appiegarth Road, W.

LANCASHIRE.—High-class Retail and Dispensing Business, in a large town; doing £1,000 per annum, mainly cash sales; for disposal owing to ill-health of proprietor; cash price £700 (less than value of stock and fixtures), or will be sold at a valuation. T. G., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PRESCRIBING and Retail Business in large town in Lancashire thickly-populated district; trade up to £1,000, or more could be done by a person with capital; no fixtures to take to; price only £60; rent low; or would suit a Surgeon as open surgery. "Bonafide," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

25 MILES from Town.—A good-class Light Retail, Dispensing, and Prescribing Business; making a return of £850 per annum; net profit £375 after paying all expenses; low rent; good house; same hands 12 years; price £250; every investigation offered. "Chemicus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MIDLANDS.—In consequence of ill-health, a light Retail Business, returning £650 per annum, cash, and showing good profits; first-class position in small town; low rent; numerous specialities for which there is an established sale; excellent opening for Dentistry; price £450. Address, "Caryoph," care of Messrs. Wyleys & Co., Coventry.

FIRST-CLASS Dispensing and Light Retail Business in West of England; doing a genuine and yearly increasing business at good prices; handsome shop; good house; returns £900, half profit; every investigation allowed; sole reason for disposal, ill health. Address, "Dispensing," Messrs. Heggeson & Co., Upper Thames Street, E.C.

£300.—Midlands.—Retail, Dispensing, and Prescribing Business; under management for many years past, and returning £700 yearly; capable of increase; rent £35; good house; corner position; owner retiring will accept £300, less than valuation of stock and fixtures. "Decoris," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NORTH OF ENGLAND.—Genuine Drug and Patent Medicine Business, with Wine Licence attached; good returns; suitable for young man with small capital; increasing every week; satisfactory reasons for disposal; cheap rent; well fitted and well stocked; price £270 or valuation. Apply 139,19, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NORTH OF ENGLAND.—An old-established good-class Retail and Dispensing Business, in the suburbs of a flourishing manufacturing town; returns approach £1,500; very profitable and increasing; very handsome Pharmacy and good family residence, at a low rent; price £1,250. Full particulars upon application to "Genuine," care of Messrs. Hearon, Squire & Francis, 38 Southwark Street, S.E.

Messrs. CROCKER & CO.

Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.

SOUTH COAST.—Light Retail, Prescribing, and Dispensing; returns £350; price £200; long lease at a low rent; worth attention.

INLAND WATERING-PLACE.—Good-class Retail and Dispensing; returns £700; price £550; very handsome pharmacy.

LINCOLNSHIRE.—Good-class Family and Dispensing trade; returns £1,500; price £1,300; domestic troubles cause of sale.

SURREY.—An old-established Family and Dispensing trade; returns £850; price £650; good house; low rent.

EASTERN COUNTIES.—Retail, Prescribing and Dispensing, in good town; returns approach £700; price £450; exceptionally good residence, with garden; low rent.

LONDON, S.W. (main road).—Old-established Retail and Dispensing; returns £1,400; price £1,000; open to offer; a splendid opportunity for a nushing man.

LONDON, S.—Retail and Dispensing; returns £800; price £600; very handsome Pharmacy; good house.

LONDON, N.—Retail and Prescribing trade in marketing spot; returns £9 weekly; price £350.

NO CHARGE TO PURCHASERS.

VALUATIONS A SPECIALITY. TERMS ON APPLICATION.

BUSINESSES FOR DISPOSAL—Continued.

FOR immediate disposal, an old-established Business on the Kent coast; Light Retail, and Prescribing; rising town; price £350. Full particulars from Griffith, Medical Hall, Canterbury.

£450.—**UNUSUAL** opportunity; profitable trade; well fitted and stocked; first-class rapidly improving suburb, S.W.; immediate possession. "Immediate," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

CHEMISTS desirous of purchasing a Business should at once apply to Thos. Tomlinson & Son, 9 New Cannon Street, Manchester, who have several exceptional chances, nearly all arising from ill-health of present proprietors.

YORKSHIRE.—Genuine first-class Dispensing, Prescribing, and Family Business; fashionable suburbs of the principal town in West Riding; shop well stocked and fitted; splendid position; moderate rental; satisfactory reasons for disposal. Apply, T. P., 16 Park Row, Leeds.

TO BE SOLD, in a popular watering-place in the North of England, in consequence of the death of the proprietor, a first-class Retail and Dispensing Business; returns £1,000 per annum; rent £80; good house. Also a Branch Business. For particulars, apply P. D. J., care of Evans, Sons & Co., Liverpool.

CHELTENHAM.—To be disposed of as a going concern, a Chemist's and Druggist's Business; excellent shop in the High Street; established upwards of 25 years; convenient residence and premises attached. Particulars may be obtained of Mr. Cornelius, Estate Agent, Auctioneer, &c. 26A Promenade Villas, Cheltenham.

£450—Chemist, doing also Wholesale, wishes to dispose of his Retail, Dispensing, and Prescribing Business; in splendid position of densely populated S.E. suburb; excellent opening for Dentist and good Prescriber, with immense scope for increase; handsomely fitted and valuable lease. "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CHEMIST'S and Aerated Water Business for immediate disposal, owing to the death of late Proprietor; established 1834; shop well fitted, and doing a good Prescribing and Proprietary trade; situate in principal street of a rapidly growing town in the Staffordshire Potteries; also Branch Establishment in a rising suburb. For further particulars apply to H. T., 4 Ashwood Terrace, Longton, Staffs.

SPECIAL. Opening for Chemist and Druggist in Forfar.—There is for sale the old-established Business of Chemist and Druggist carried on originally in name of the late Mr. James A. Ranken, and latterly in name of J. A. Ranken & Son, at No. 19 East High Street, Forfar. The stock, which is fresh and of moderate amount, and fittings will be given over at valuation, and the premises, which were specially built and fitted up for the business, will be let on lease for 5 or 10 years, as may be agreed on, at a rent of £45 per annum.

Terms cash. An approved bill for a part may be accepted.

Offers for the Goodwill, so marked on outside, will be received by William Gordon, Solicitor, Forfar, on or before 11th April next, and he will give orders to see the stock, and all particulars. The highest or any offer may not be accepted.

The business is being disposed of in consequence of the present state of health of Mr. John Ranken, the sole partner.

Forfar, 23rd March, 1891.

BUSINESS WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FOR CASH.—A good-class Retail and Dispensing Business, Suburban or Country (south preferred); returns from £700 to £1,000; good price will be paid for a genuine concern. F. J. L., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TENDERS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

LONDON ROAD-CAR CO., LIMITED.

TENDERS wanted for the supply of Drugs for the current year. Specifications to be obtained from the Secretary, 9 Grosvenor Road, London, S.W.

PARTNERSHIPS.

PARTNERSHIP.—Gentleman having a really first-class and genuine business, is desirous of taking in a qualified Working Partner, with capital; amount required about £500. Apply, "Quinine," care of Evans, Sons & Co., 56 Hanover Street, Liverpool.

AERATED WATERS, Soluble Essences, &c.—A Practical Chemist, and Manager to large Mineral-water Company, is open to negotiate with a Chemist and Druggist, with good sale for Aerated Waters, with a view to Partnership in starting manufactory for same; large experience and good formulæ. "Limonis," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.

ABOUT 80 gallons White Newfoundland Cod Liver Oil; price 2s. 6d. per gallon, in Leeds; samples on application. Benjamin R. Vickers & Sons, Oil Importers, Leeds.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

SHOP TO LET, suitable for a Chemist; well situated in the rapidly growing town of Wolverton Station, and close to the extensive carriage-works of the North-Western Railway Company; the shop has plate-glass front, 1 sitting, 3 bedrooms, dry cellar, gas and water laid on; rent moderate. For terms, apply to W. White, Towcester, Northants.

MEDICAL.—Two places for Sale; lowest price £550 each; would suit Surgeon, Chemist, or Botanic Druggist. 1st, a 6-roomed house, with plate-glass front, surgery fittings, garden and out-offices; used 9 years as a "Provident Dispensary." 2nd, to end of lease, rent 50*l.*; in hands of present Surgeon, 35 years; over this is "The Hall of Science and Anatomy," from which alone a fortune may be made by fresh energy. Apply Dr. S., 23 Queen's Road, Brighton.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, to Apprentice a well-educated Youth of 18, where he would be under Christian influence; terms moderate. Address, W. B. W., 216 Regent Street, W.

APPRENTICE.—An educated, gentlemanly youth as Apprentice by Mr. Procter, Chemist, Penarth. Business of the highest class. Exceptional references to pupils and parents. Last pupil, Mr A. E. Adams, 22, passed Major February last. Penarth is one of the prettiest watering-places in South Wales, and one of the healthiest in the kingdom.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a qualified Assistant. Apply, with references, salary (outdoors), &c., to J. J. Nicholson & Co., Chemists, Sunderland.

FOR the middle of April, a good Junior; total abstainer preferred. Send photo, with full particulars, to N. M. Grose, Pharmacist, Swansea.

EARLY in April, a qualified Junior Assistant. Apply personally to J. B. Barnes, Pharmaceutical Chemist, Trevor Terrace, Knightsbridge, S.W.

WANTED, immediately, Dispenser to a firm of Surgeons; Minor qualification. Apply, sending copies of testimonials, to Bradley & Blake, Reading.

TRAVELLERS, on Commission, to sell high-class Toilet Requisites and Perfumery. Manager, Beatrice Perfumery Co., 98 Portway, West Ham, E.

ASSISTANT, mixed country business; easy hours; no Sunday duty; to fill time with a little simple bookkeeping. John Sumner, High Street, Coleshill.

WANTED, a Young Man of good character and good address as canvasser. Apply, by letter only, Johnson & Johnson, Limited, 1 & 2 Australian Avenue, E.C.

JUNIOR or Improver for Mixed Country business. Apply, with full particulars as to age, height, experience, salary required (outdoors), and references, to Noble, Chemist, Peterborough.

QUALIFIED and energetic Assistant wanted immediately; one accustomed to a good-class counter; salary (outdoors) £100. Mawson, Swan & Weddell, Newcastle-on-Tyne.

SENIOR; qualified; accustomed to first-class business; indoors; neat Dispenser and good Salesman, also to travel occasionally; good salary to suitable person. Fripp & Co., Chester.

ASSISTANT (indoors), at once, competent; accustomed to Dispensing business; dwelling-house apart from business. State age, salary, references, and when disengaged, to T. Fox, Great Malvern.

DRUG and Drysaltery Assistant (young) wanted at once: outdoors; good references indispensable. Address, stating age, salary required, and references, to 146 Gooch Street, Birmingham.

WANTED, a qualified Assistant, about 24 years, accustomed to a good-class Dispensing and Retail business; indoors. Apply, stating age, height, salary, and references, to Davis, Chemist, Rhyl.

WANTED, energetic Assistant for Retail and Dispensing department; sleep on premises, board out; enclose carte de visite and give full particulars; state salary expected. Kiloh & Co., Ltd., Cork.

INLAND WATERING-PLACE.—An Assistant, about 23, accustomed to first-class business and well up in Dispensing. Apply, with photo and usual particulars, to A. Thresh, Spring Gardens, Buxton, Derbys.

A COMPETENT Assistant (indoors), about 24; must be well up in Dispensing and accustomed to a good-class business. Apply, stating age, height, salary, and references, to J. Munday, Chemist, 1 High Street, Cardiff.

L. P.S.I.—Wanted, an Assistant, having considerable practical experience in Pharmacy, holding this qualification. Address, with usual particulars, and state salary (outdoors), "Statim," care of Messrs. Barron, Harveys & Co., Giltspur Street.

DISPENSER wanted: must be a good Photographer, and willing to assist in Pathological Laboratory and post-mortem room. Apply, stating age, previous experience, &c., to the Superintendent, County Asylum, Prestwich, Manchester.

AN indoor Assistant, aged 20 to 25, accustomed to good Country Dispensing and Retail; hours 8 to 8 Sat. 8 to 9.30, weekly half-holiday; duty light. Apply, stating salary required, and enclosing carte (returned), to Chalmers & Son, Newport, Salop.

WANTED, active, trustworthy Assistant for Branch (Midlands); references indispensable. Apply, stating age, height, salary required, to "Salol," c/o Messrs. Hodgkinson, Prestons, & King, 81 Bishopsgate Street Without, London, E.C.

JUNIOR wanted, by April 9, to Dispense for a Doctor, and take charge of Retail; good Salesman and neat Dispenser; indoors preferred; if out state salary; aged 23 or 24. Good references required, by M. D., 606 Harrow Road, W.; apply from 7 to 9 P.M.

WANTED, towards the end of April, an outdoor Assistant, unmarried, for a busy Country Retail; applicants must be neat, quick, and energetic. Full particulars, with references and carte (to be returned), to Grimble & Kent, Wholesale and Retail Chemists, Boston.

ASSISTANT (indoor) wanted immediately, for Dispensing and Retail Counter. Please state usual particulars of age, height, salary required, and when disengaged; also enclosing C. de V., if convenient; hours short; duty divided between three. Baker & Wright, Chelmsford, Essex.

TRAVELLER.—Wanted, a smart Young Man, of good address and intimate knowledge of the Drug Trade, to represent a firm of Manufacturing Pharmacists in the North. Applications treated as strictly confidential. "Drugs," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, active Junior (outdoors), about 20, for pushing Retail business; must be quick and reliable, and a good Counterman. Apply, stating age, height, experience, reference, and salary required, enclosing photo, to J. & J. Thompson & Co. (Limited), 192 Manchester Street, Oldham.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—There will be a vacancy for a Second Dispenser shortly after Easter. Candidates possessing the Minor qualification are requested to apply in own handwriting, stating age, salary required, and particulars, to the Secretary.

WANTED, at once, Assistant, about 22, accustomed to good-class Retail and Dispensing; hours 8 to 9, two nights off at 7 weekly, one hour each morning, and half day monthly; salary £40. Apply personally if possible, or photo (to be returned), with full particulars, 156 Clapham Road, S.W.

WANTED, an Assistant, aged 20 to 24, accustomed to a Country business, active, and a good Counterman; must be steady and trustworthy. Apply, stating age, height, experience, salary (indoors), when disengaged, enclosing references, and photo (if convenient), E. Jenkins, Chemist, Faversham.

CHEMISTS' Specialties.—Wanted, a young man accustomed to superintend the bottling, labelling, packing, and shipping of these goods for the export trade; with reply by letter, state, in confidence, with what house engaged or where experience obtained. "Export," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a Junior Assistant; good address, quick and accurate Counterman. Send all particulars in first letter, Neodham Bros., Huddersfield.

DR. SARGENT requires no Assistant to attend his Retail. Apply, stating salary required, personally or by letter, on Tuesday next, at Station Road, Brixton Railway Station, London.

WANTED, middle of April, good Junior, about 21, for Light Retail and Dispensing business; abstainer preferred; good references indispensable; time for study; no Sunday duty. Address, with photo, stating age, height, experience, with references and salary required, "Tempus," Southall & Barclay, Birmingham.

AN active, reliable Assistant about 22, for a good-class Retail, Dispensing, and Prescribing business in London suburb, by April 20th; abstainer; member of Christian Church preferred; comfortable home. Address, with full particulars, photo, and references, to J. H. H., Messrs. Edwards & Son, 157 Queen Victoria Street, E.C.

JUNIOR Assistant wanted immediately; only one kept; anyone desiring to study would find this suitable situation; hours very short; no Sunday duty. Apply, with full particulars as to age, height, experience, when disengaged, photo, if convenient (will be returned), references, and salary required (outdoors), Harmer, Chemist, South Street, Eastbourne.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—A duly qualified Dispenser required for temporary engagement (during illness of Head Dispenser) of 2 to 3 months, or may be longer. Highest testimonials for character and ability. Applications, stating age and salary expected, may be sent to the Secretary, at the Hospital.

APRIL 11.—Smart Junior or Turnover (requiring permanency), of good address, for Retail, Dispensing, and Photographic business (or Branch); industrious, obliging, and trustworthy; Tooth-extractor, Prescriber, and good Salesman preferred. State age, height, experience, outdoor salary, &c. (enclosing photo and references), to "Pharmacy," 73 Freeman Street, Grimsby. Also outdoor Apprentice.

LABORATORY.—Old-established firm of London Druggists have a vacancy for a young Chemist who has had a good scientific education, followed by a few years' experience of the manufacture of extracts, small chemicals, and other P.B. preparations, as well as of the purification of heavy chemicals, &c.; liberal terms to a suitable applicant. Address, stating age, experience, and salary required, H., Lynwood Villa, Beaconsfield Road, New Southgate.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

SITUATION as Improver wanted. Surveyor of Highways, Hinstock, Market Drayton.

QUALIFIED Assistant wishes situation in City; state hours, salary. Y., care of Seath, Chemist, Dunfermline.

ASSISTANT or Manage Branch; single; aged 36; unqualified; indoors; permanency preferred. Dumbus, Aston, Nantwich.

JUNIOR; Bath or Bristol preferred; 6 years' experience; Hall qualification; aged 21½. "Amyll," Chemist, Epping, Essex.

JUNIOR (21); indoors; 5 years' experience; height 5 ft. 7½ in.; moderate salary; good references; unqualified. "Chemist," 39 Wormgate, Boston.

ASSISTANT; aged 26; disengaged; first-class testimonials and references. A. G., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED; aged 24; height 5 ft. 9 in.; 9 years' experience, 18 months West-end; outdoors if possible. "Phenacetin," 312 Vauxhall Bridge Road, London.

AS Assistant; Wholesale, Retail or Sundries; well up in the trade; 25; single; can purchase share. Address, H., 34 Currier Lane, Ashton-under-Lyne.

MANAGER qualified; experienced Tooth Extractor, Prescriber, and Counterman; aged 30; married, without family; disengaged. "Chemist," Kingston Road, Wimbledon.

MANAGER; qualified; experienced Tooth Extractor and Prescriber; married, one in family. Address, "Lapis," Bridge Pharmacy, Harlow, near L. & N. W. Railway Station.

AS Branch Manager, or Dispenser in Store; qualified; 29; 15 years experience; height 5 ft. 10 in.; outdoors. "Tinctura," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; aged 24; 8½ years' experience; can Prescribe, Extract and take Impressions; time for study; town or country. State full particulars to H. H., 4A Montfort Road, Strood, Kent.

SOLUBLE ESSENCES, &c., for Mineral-water Makers, Brewers, Confectioners, Biscuit Manufacturers, &c.; Advertiser, having a thorough practical knowledge of the manufacture of same (quality unequalled), is desirous of treating with firms at present or about to manufacture above. Full requirements to "Nulli Secundus," Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

AS Traveller (Yorkshire district); Drugs, Sundries, Varnishes, Colours, Specialities, &c. Burkitt, Ossett.

AS Assistant or Dispenser; qualified; state hours. "Pharmacist," 110 Cheltenham Road, Bristol.

LOCUM-TENENS; disengaged April; aged 24. "Chemist," Market Place, Underhill Road, East Dulwich.

JUNIOR. Good Counterman and Dispenser; age 20; first-class references. Hughes, 159 Manchester Street, Oldham.

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FRANK DUNN EDWARDS, Deceased.

Pursuant to the Act of Parliament, 22nd and 23rd Victoria, chapter 35, intituled "An Act to further amend the Law of Property, and to relieve Trustees."

NOTICE is hereby given that all Creditors and other persons having any claims or demands against the estate of Frank Dunn Edwards, late of Bridge Street, Usk, in the County of Monmouth, Chemist, deceased (who died on the 24th day of November, 1890, and whose will was proved in the Llandaff District Registry of the Probate Division of Her Majesty's High Court of Justice, on the 17th day of March, 1891, by Mary Frances Edwards, of Bridge Street, Usk, aforesaid, Widow (the Executrix therein named), are hereby required to send the particulars, in writing, of their claims or demands to me, the undersigned, T. Watkins, of Pontypool, in the said County of Monmouth, the Solicitor of the said Executrix, on or before the 7th day of May, 1891, after which date the said Executrix will proceed to distribute the assets of the said deceased amongst the persons entitled thereto, having regard only to the claims and demands of which she shall then have had notice; and she will not be liable for the assets of the said deceased, or any part thereof, so distributed to any person or persons of whose claims or demands she shall not then have had notice.

Dated this 23rd day of March, 1891.

T. WATKINS, Pontypool,
Solicitor for the Executrix.

Printed by SPOTTISWOODE & Co., New-street Square; and Published at the Office, 42 Cannon Street, in the City of London. March 28, 1891

by the Legislature and to provide for a modest curriculum. Such Bills could excite only a languid sort of interest among a very limited section of members, but even those were scrutinised pretty closely by a few particularly watchful guardians of the public weal. The Bill of 1891 presents a much more extensive demand. There are clauses in it which put forward claims for monopoly and privilege which Parliament certainly ought not to concede without very close examination. In our opinion the clause claiming an exclusive right to compound "medical prescriptions" is much more likely to wreck the Bill than would have been one demanding that only the people contemplated by the Act of 1868 should be entitled to use the designation chemist and druggist. And we also think that the enactment of the latter provision would have been of greater ultimate benefit than the former. For unless compounding of medical prescriptions should be interpreted to mean a great deal more than it is fair that it should mean, the actual addition to the business of chemists and druggists which can result from the concession, if it should be granted, will turn out to be curiously small.

It is stated by Parliamentary authorities that the present Session is a particularly favourable one for a Bill such as this one of Sir Henry Roscoe's. The combative spirit in the House has, to a great extent, exhausted itself, and the interest taken in measures other than those of prominent party concern is of the most languid character. On the other hand, it has to be remembered that the Bill is introduced at a late period of the Session, and that unless it can be got in the orders in front of something of greater general interest on some occasion it will be a great chance whether a House can be kept for it.

The question asked by Mr. Samuel Smith on Monday last, and the Home Secretary's reply, are indications of the directions in which alone chemists and druggists can, if they choose, secure greater protection than the law now gives them. This is in regard to the sale of poisons. We have frequently urged on unsympathetic readers that the wisest policy for chemists to follow would be that which the trade has more than once indignantly rejected—namely, a cordial co-operation with the authorities in regulating the sale of poisons. With some delicate-fingered pharmacists declaring that they do not wish to touch the horrid things, with others proclaiming that their idea of restriction is to charge double prices for them, and with most of the rest of them stoutly resisting anything like Government interference, can it be wondered at that the Privy Council should be slow to extend the Poisons Schedule, or assist chemists to strengthen their position? We only have at present, we are told, "a wretched Poisons Act," and it is thought fine to ignore it as far as possible. If that Act had been respected as it should have been during the past twenty years, chemists should have been by this time regarded by the Privy Council with almost as much confidence as if they were officials of the department.

MATERIA MEDICA NOTES.

ONE of the peculiarities of our drug supply is that while the staples come to us year by year from original sources, there is always some new competitor for our custom. To this fact is partly due the appearance on our markets now and then of drugs which, while similar in name, are dissimilar in other respects from the staple article. Occasionally, also, we find that new supplies offer distinct advantages over the old. Apart from considerations of supply and demand, these new drugs are generally of sufficient interest to arrest the attention of pharmacognosists and even of pharmacologists; but, unfortunately, they rarely are informed about them, and generally only when articles prove to be unsaleable. The object of these notes is twofold: to inform retailers and wholesalers regarding new supplies, and to call the attention of investigators to what, in most cases, would be interesting and profitable work. Obviously it is desirable, when new and spurious drugs appear on the market, to acquaint the trade as early as possible regarding their properties.

Australian Sandal-wood Oil. Although Australia exports large quantities of "Sandal-wood" to China and elsewhere, and Mr. Joseph Bosisto showed a specimen of Australian sandal-wood oil at the Colonial and Indian Exhibition in 1886, the oil has only lately come into commerce in larger than sample quantities. There are several species of *Santalum* indigenous to the Australasian continent, but none of them have the fragrance of *Santalum album*, and they are chiefly used as timber. What is known to pharmacists as Australian sandal-wood is the product of two or more plants of the allied genus *Fusanus*, which at one time was ranked as *Santalum*. By far the most important of these Australian sandals is *F. spicatus*, R. Br., which yields the fragrant sandal-wood of West and South Australia. It was from the wood of this tree that Mr. Bosisto distilled his sample of sandal-wood oil. For several years the wood has been exported in large quantities from Western Australia; but only recently has the Western Australian Distillery Company (Limited), with head-quarters at Albany, undertaken the distillation of the essential oil on an extensive scale. Several consignments have already reached London and been disposed of, and last week ten cases of the oil were offered at the public sales.

We have had the opportunity of examining a small sample of this oil, and have carefully compared it with a sample of genuine Madras oil. The Australian oil is of much more fragrant odour than the Madras kind; it rather resembles the Fiji oil (distilled from *Santalum Yasi*) in this respect, and also in colour, which is a pale straw. The most notable point of difference between this oil and the official kind is in specific gravity, which is 0·963. This is above the B.P. figure, but the experience of distillers of East Indian wood goes to show that oil from that source has a specific gravity of at least 0·970, and that figure is, we believe, generally taken by wholesale houses. That being so, it is obvious that the Australian oil might be looked upon with suspicion, especially as it is not so soluble as East Indian oil in a mixture of 1 part of proof-spirit and 3 parts of rectified spirit; the latter dissolves in its own volume, while 1 volume of Australian oil requires at least 1½ volume of the spirit. Both differences are, we have assured ourselves, due to the oil containing a larger proportion of lower boiling constituents, and not to admixture of cedar-wood oil. So far as the physical characteristics indicate, the oil may be regarded as equal to official sandal-wood oil, but it would be advantageous to have a hospital trial made of it.

African Copaiba. If we were to adhere to what the books say, copaiba is a product peculiar to South America; but it is an interesting fact that there are copaiba-trees all over the world, even in Australia, although these have little in common with, and are not species of *Copaifera*. Three or four years ago there was a consignment of copaiba from West Africa, and last week, again, there was a barrel containing 16¼ cwt. offered for sale, but no buyer would look at it. They regarded it with suspicion, probably on account of its appearance, for it is a dirty fawn-coloured opaque oleo-resin, of honey consistence. Even its odour more resembles honey than

oopaiba. The opacity, we find, is mainly due to water, but a small proportion of ligneous and sandy matter is held in suspension, and this, in part, accounts for the opacity By careful heating and filtration the balsam is obtained clear, then the copaiba odour becomes manifest. The usual tests for copaiba were tried with satisfactory results, so that although the article looks suspicious, and may on that account fetch a low price, it cannot be said that it is not a genuine copaiba.

Cubebs. We had our attention called some weeks ago to the offer of an Amsterdam firm to supply to English houses "spurious cubebs for druggists' use." We have been fortunate in securing a sample of these, and of three kinds for distillation. Of the latter, sample *a* consisted of extremely small and shrivelled berries of a black colour, mixed with stalks, most of which were smooth, and some showed the characteristic markings of the piper rachis. The sample contained 100 grains of stalk and 440 grains of berry. The latter was very deficient in aroma, and, unlike immature cubebs, did not give the crimson-coloured reaction with sulphuric acid. The impression left from the examination of this sample was that the berries had already been in the still: were the feeble aroma due to immaturity, we should have expected to get a better cubebin reaction. Against this supposition it may, however, be stated that last week 60 bags of similar berries were disposed of in Mincing Lane. These were of direct import from Singapore. Samples *b* and *c* were recognised as true cubebs, differing only in proportion of stalk, and *c* showed the presence of a small percentage of the unnamed cubeb substitute which is more globular and larger than the true berry, but is not *Piper crassipes*. Sample *b* contained 205 grains of stalk, chiefly bold rachis, to 360 grains of berry. This sample was rich in essential oil. Sample *c* contained 130 grains of very bold rachis to 300 grains of berry less abundant in oil than the former. Sample *d*, "spurious for druggists' use," was the fruit of *Piper crassipes*. Apart from the question of admixture with spurious fruit, the proportion of stalk is a matter which distillers should look into more carefully than they do. Cubebs yield from 12 to 16 per cent. of essential oil, and the stalks only 1 per cent.—frequently less. While their presence is not objectionable, the fact that to the eye sample *c* contained less than *b*, while it actually showed about 6 per cent. more, is a sufficient argument for more careful consideration on the part of buyers. The question also naturally arises, "Do all these stalky cubebs go into the still, or may some not find their way into the mill?" That can only be determined by microscopic examination of the commercial powder, and comparison with the histological characters of cubeb stalks. It may be mentioned that what we have estimated as the best of the three distillation samples was the lowest priced. We learn regarding the spurious cubebs that 150 bags of them were imported into Amsterdam last year, and were sold at 3*s*. per lb., this being the limit fixed by the growers in Java. It is from the East Coast of Java that they are imported.

Amongst other drugs which have recently come under our notice are patchouly from the West Coast of Africa and bitter kola-nuts. The latter is a nut not unlike the ordinary monkey-nut in shape, but solid throughout, and of a greyish colour externally. It is the product of *Garcinia Kola*, Heckel, a shrub which is a native of East Africa and Senegal. It is not new to this market, as Mr. Helbing identified it four years ago. We have met with a second kola lately which is of suspicious appearance, but we have not yet had the opportunity of proving its identity. The patchouly referred to is a rather good specimen, the leaves being dried with some care, and of full aroma. We take it that they are the first-fruits of the recommendation by the Kew authorities to cultivate the plant, and we fear that the planters may have cause to regret their enterprise.

PHARMACEUTICAL ETYMOLOGY

Mr. Hyslop's lecture on pharmaceutical etymology, which we reported last week, dealt with a subject of far greater importance than the compilers of books on materia medica seem to think it. Very rarely do the authors of these manuals venture on any but the most thoroughly beaten track. They copy scope, arrangement, and often actual text from each other with a faithfulness which would be admirable if only the original model were perfect. A new feature in their treatises would be something very like heresy. Hanbury and Flückiger's "Pharmacographia" has been the one exception to this method in our generation. That was a strikingly original work; it is not simply a book of reference, it is a readable book, and one of its most attractive characteristics is the "history" section in each treatise. The facts collected by these authors, and presented, far too briefly, in their book, concerning a number of our best-known drugs, have now become common property. We distinguish with difficulty now what we knew before Hanbury wrote and what he taught us. But it is certain that the association of legends and historic records with our medicines, which he and his coadjutor introduced, is one of the best means of arousing an interest in them and retaining a friendly feeling for them.

Hanbury and Flückiger did not deal with pharmaceutical etymology so systematically and exhaustively as we could have wished, but they by no means neglected this as an historical factor. They touch upon it in a number of instances as elucidatory of the early ideas or origin of the drug under discussion. And their allusions show how much etymology can teach or suggest. Archbishop Trench described words as crystallised history. The force of this definition can be easily made apparent. Take as an example, familiar to everyone, the instance of cinchona. This name rightly records in the annals of history for ever the efforts of the lady who, having been herself cured of a fever by means of a bark, spent a great part of the rest of her life in making known its virtues and in its charitable distribution. It seems to have been only by a narrow chance that the pretty title of the Spanish countess won the public fancy. "Jesuit's Bark," and terms more clumsy still, seemed at first more assured of immortality.

Mr. Hyslop has brought to the front a fair sample of the interesting legends which cling around the nomination of medicines. In the necessarily condensed form of his lecture, or at least of the report of it which we were able to offer, many records are so imperfectly given as to be almost misleading; and in some other cases derivations are quoted which are certainly open to discussion. This may be said in regard to a great portion of the results of philological research, so that the few comments on some of the disputable questions raised which we venture to append are to be regarded as merely supplementary to, and not by any means as disrespectful towards, the lecture.

Mr. Hyslop, we observe, derives the word "alcohol," for instance, from an Arab term, "Al-Kohl," which he renders as "the holy black," or "the sacred black." We do not know the authority for this derivation—neither Littré nor Murray gives it any support. The former traces the body of the word to either *qochl*, to reduce to a very fine powder, or to *qali*, to roast, the term from which alkali is obtained. No

doubt the word was first employed for the black antimonial powder applied by Arab ladies to the eyelids. Then it became enlarged in its meaning, extending to other very fine powders, especially to those produced by sublimation. Humphry Davy even refers to sublimed sulphur as the "alcohol of sulphur." The transition of meaning from a sublimed powder to a distilled spirit was gradual, but is easily comprehensible.

"Triticum," Mr. Hyslop tells us, comes from *tribo*, the word which also yields "tribulation." This is scarcely a correct way of putting the story. Both words are traceable to *tero*, but have come to their present condition by different routes.

Bismuth offers a very interesting field for etymological research. Until early in the sixteenth century the metal was not distinguished by the miners or by scientific men from lead. It is first alluded to by Agricola, about 1520, as "Wissmuth," a name that he latinised into *bisamutum*. Mr. Hyslop adopts the explanation given by old authors, but long since discarded, that *wissmuth* was composed of *weiss* and *muth*, indicative of its lively whiteness, as distinguished from the dead white of silver. *Weiss muth* might mean white liveliness, the German of which expression would not be much better than the English of it; but the combination could never have meant lively white. Philologists seem to have abandoned the attempt of ascertaining how the curious name came to be applied to the metal or its ore.

The two Saxon words "hemlock" and "foxglove" are too concisely dealt with by our lecturer. The first syllable of the first he traces to *healm*, "stubble or hay," and accounts for its association here "from the hay-like appearance presented by the dried herb." Mr. Skeat, the well-known Anglo-Saxon scholar, traced the "hem" to the verb *hamman*, "to injure" (the same root appearing in our verb "to hamper"), and the second to *lace*, the original of "leek." But he was not satisfied with that derivation, and has since suggested *hime lace*, "stinking herb," as a more probable explanation. Hanbury gives *hem*, "border, shore," and *lace*, "herb," as the origin, suggesting that it was a herb growing on the banks of rivers, or by the borders of fields. Of course, *healm lace* may fairly compete with these origins. Foxglove, Mr. Hyslop says, means the glove of the folk (fairies), not of the fox. We do not know that there is any evidence in Saxon literature in support of the pretty fancy that the first syllable was originally "folk's," but it is a very likely suggestion. It was first made, we believe, by a Lady Wilkinson. But the poetic notion has been carried still further by a modification of the second syllable also. According to this theory, the flower would have been originally called *folk's glew*, or *folk's gliew*, meaning "fairy bells"—likening the plant to the old tintinnabulum, or reed on which was hung a series of little bells.

In tracing the travels of the word "camphor" from the Sanskrit *karpura* to the Latin *camphora*, Mr. Hyslop omits the essential Arabic link, *kafur*. His "physician" Gentius, who gave his name to the gentian, is more generally known to history as a king of Illyria, who was conquered by the Romans, B.C. 160. "Valerian" may be derived from *valere*, indicating its value as a cure. Many authorities have copied the derivation one from the other, but it seems far-fetched. Linnæus attributed it to some unknown person of the name of Valerius, which is much more likely. Asafœtida is from the Persian *aza*—not *assa*—and means "a stinking gum." Turmeric, Mr. Hyslop says, is obtained from *terre-merite*—a term commonly used in French for the powder. We prefer Hanbury's theory, that *terre-merite* is a corruption of turmeric. The word is said to have been originally a compound of the Hindustani *zurd* and *mirch*, meaning "yellow pepper."

COMMENTARY.

WO, LITTLE TOE!—According to the *Monthly Medical Review*, "Pfitzner" has observed that the little toe of man is degenerating. In 36 per cent. of the cases he has observed it had only two instead of three phalanges. We agree with Pfitzner that this is serious. It looks like the beginning of the end. But it is not easy to see how the degradation is to be stopped.

HOW TO TEST FOR LANOLINE.—Mr. Frank T. Green, of California College of Pharmacy, informs the *American Druggist* that when lanoline is examined under the microscope sheep's-wool fibres are seen, which differ from those of cotton in being firm and rounded — not flattened or twisted. Several samples of lanoline gave like results. We wonder what Mr. Green means by "lanoline"? If there are wool fibres in it after the fats have been purified by solution and filtration, it is a little astonishing. Will some one try?

ADULTERATED MACE.—Dr. Hefelmann, of Leipzig, states in the *Pharmaceutische Zeitung* that he has found commercial powdered "Bombay" mace to be an article adulterated with turmeric, but the fraud is easily detected, either by the usual boric-acid test for turmeric or the behaviour of the alcoholic extract of the mace towards lead acetate. True mace gives in the latter case a white turbidity, but Bombay mace gives a red precipitate, which really is due to the turmeric; both the Bombay and Madras vary, giving in alcoholic solution a dirty-red colour with lead acetate. In addition to this colouring-matter, the powdered mace contains starch matter—probably arrowroot and banana flour.

THE SHOP HOURS BILL.—Mr. Provand, M.P., who has brought in a Bill to extend and render effective the Shop Hours Act, informs us that the measure which he introduced last session, and which is again before the House this session, has no chance of coming up for a second reading, as the hon. member failed to procure a good place in the ballot. Mr. Provand adds, "I tried last year, and again this, to get a parliamentary committee appointed to consider this Bill, but Mr. Matthews would not grant it. Sir John Lubbock also tried to do so, and was likewise refused. This is how the matter stands at present. If next session I am fortunate in the ballot, I think the House would pass a second reading of the Bill; but if this question is to come before the Royal Commission on Labour, the Government might consider that that ought to shelve for the present all attempts of private members to do anything."

SALICYLATE OF BISMUTH has come into favour of recent years, and it is supposed to have the formula $Bi_2O_3C_7H_3O_3$. M. Garnaud reports to *L'Union Pharmaceutique* that he has examined eighteen commercial specimens of the salt, and he only found nine of them pure: that is, they yielded no free salicylic acid when treated with ether, fused when heated, contained no nitrate, and yielded 64 per cent. of bismuth oxide by incineration. The three samples next to these in quality contained 0·5, 1, and 1·5 per cent. of free salicylic acid, yielded 58, 66, and 68 per cent. of bismuth oxide, and were more or less contaminated with nitrate. The remaining samples were bad; two only contained less than 5 per cent. of uncombined salicylic acid—13·3 to 51·17 being the percentages in four—and the percentages of bismuth oxide were 34, 36, 46, 48, 61, and 63. It is noteworthy that all the specimens containing free salicylic acid charred when they were heated. The most extraordinary sample was one which consisted of 1 part of salicylic acid and 9 parts of

calomel! This sublimed without residue. It is evident from these facts that salicylate of bismuth should not be stocked without previous examination.

THE ACONITE RESEARCH.—The latest work of the Research Laboratory of the Pharmaceutical Society promises to be of considerable value to pharmacy, if those who are conducting it appreciate the commercial difficulties which have always attended the therapeutic use of aconitine, as well as the confusion into which investigators have turned its literature. The paper which Professor Dunstan read before the Chemical Society last week was as well received as papers to that society generally are; but it was noteworthy that there was complete absence of that enthusiasm and interest which are generally manifest when the work of the Laboratory is reported on at the "Square." It was mentioned in our report that no reference was made at Burlington House to the fact that the work had been done in the Research Laboratory. The Pharmaceutical Council has, by resolution, required that "The publication of research shall not take place without the sanction of the director or committee, and in all cases the words 'Communication from the Research Laboratory of the Pharmaceutical Society of Great Britain,' or their equivalent, shall be appended to the title of each paper." Whether this stipulation has been obeyed literally we cannot say: it certainly seems to have been disregarded in spirit. Why the results of the Laboratory work should be taken to the Chemical Society at all is not very intelligible. There has been no period in the history of the Pharmaceutical Society when its own evening meetings have been in such a languishing condition as they are now; and while this condition obtains, it seems unfair to export the work which the Society buys so dearly. Surely, too, it is at Bloomsbury Square that such papers as we refer to can be best appreciated and discussed.

PTOMAINES.—Since we published, fully a year ago, a paper by Dr. A. P. Luff, on the "Production and Composition of Ptomaines," a good deal of work has been done upon those obtainable from cultivations of pathogenic microbes, and upon those "leucomaines" which can be isolated from the excretions of healthy living animals, with the result that much new light has been thrown upon the nature and rational treatment of disease. Thus, from cultivations of the various species of vibrio, of the comma bacillus, and of the bacillus of cystinuria, cadaverine has been isolated, although hitherto that body has only been obtained from corpses. This ptomaine is believed to have the constitution $NH_2-CH_2-CH_2-CH_2-CH_2-CH_2-NH_2$, *i e*, to be pentamethylenediamine; it is an alkaline, syrupy liquid, with an odour of coniine and sperm-fluid, and is greedily absorbent of carbon dioxide. It forms salts with acids, and the hydrochlorate when distilled splits up into ammonia and the ring-constituted piperidine, $C_5H_{10}NH$. The same resolution is believed to be effected by contact with iodoform, which may account for the occasional decomposition of the latter when applied to suppurating surfaces. Professor R Kobert, from an experimental investigation of cadaverine (both "natural" and synthetical), concludes that the toxicity of the base can be considerably reduced by converting it into a neutral salt, and sees in this fact an explanation of the usefulness of acid drinks and tannin enemas in the treatment of cholera, while he also suggests the injection of a few drops of a dilute organic acid into the seat of all local accumulations of pus. It has also been suggested that eventually the treatment of so-called biliousness, typhoid, Bright's disease, rabies, anthrax, and the contagious diseases as a whole will have to be based upon a similar view of their origin and cause. It is not possible to say at present whether the production of each ptomaine is dependent upon a special microbe, upon the nature of the medium, or upon other conditions.

VALUATION OF WHITING.

By W. H. McGRATH.

THERE can be little doubt that in the near future much more care will be exercised in the purchase of this article than has been the case in the past. From time to time in the ordinary way of business I have examined many samples, of course with distinct reference to the amount of carbonic radicle which they contained, and the widely different results obtained induced me to extend my researches. Having now brought these to a conclusion, I have considered it worth while to make a selection from my laboratory note-book, and submit the results of my experiments for the purpose of calling attention to what might prove to be a source of loss—and a serious loss too. I am well aware that this does not appear likely at first sight; but when I have submitted a short table to illustrate my meaning, the case will, I think, be more explicitly defined. I have made five selections, as representing fairly the bulk of the work done:—

—	1	2	3	4	5
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Moisture ..	2	5	2	6	4
CO_2	43	35	42	36	40

This is all of the table possessing general interest, as it is obvious that for mineral water purposes whiting can only be valued for the amount of CO_2. It will be observed from the above that where the moisture is high the amount of gas is almost proportionally low. I do not mean, however, to infer that water has been added for the purpose of giving weight, but that the whiting has not been sufficiently dried. Under any circumstances, the more water a whiting contains the less value it is to the buyer, unless properly estimated and purchased accordingly.

Taking No. 1 as the standard of comparison, the actual loss on the others would be as follows (per ton):—

2			3		4			5		
cwt.	qr.	lbs.	qr.	lbs.	cwt.	qr.	lbs.	cwt.	qr.	lbs.
3	2	24	1	24	3	0	26	1	1	16

Now Nos. 1 and 2 were quoted at exactly the same figure and, as 16 cwt. 1 qr. 4 lbs. of No. 1 equal 1 ton of No. 2, it is evident that some means of control must be resorted to. Looking over the work, I cannot help arriving at the conclusion that any whiting containing less than 42 per cent. CO_2 ought to be rejected unless it can be had at a corresponding reduction.

Nos. 1, 2, 3, and 4 made gas of a good quality; but No. 5 (ground dolomite) gave a gas of an earthy and most unpleasant odour, which instantly condemned it.

TRANSFERENCE AND VITRIFICATION OF PHOTOGRAPHS.—A pulverised, vitrifiable colour is mixed with gum arabic and water and spread uniformly upon a piece of somewhat thick rag paper. This is dried, and twelve hours before it is used it is passed quickly through a solution of oxalate of iron and again dried. It is then pressed and exposed to the solar ray under the photographic negative whose image is to be transferred to porcelain. The leaf is now placed for a few moments in distilled water, and is then pressed firmly upon the porcelain object, which is then placed in water. The paper becomes slowly detached, leaving the impression. The object should be carefully dried, and may then be vitrified in a furnace. Such is a process recently proposed.

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Being Chemical, Pharmaceutical, and Therapeutical Notes on Remedies recently introduced into Medicine.

Amyleni Hydras. Hydrate of Amylene. Tertiary Amyl Alcohol or Dimethyl-ethyl Carbinol. $2CH_3.C_2H_5.COH$.

The attempts which were made in the early days of chloroform to replace it with amylene have been diverted lately in favour of its derivative above named, which promises to become a useful hypnotic. Amylene hydrate is made by the action of sulphuric acid, diluted with a third of water, upon amylene (C_5H_{10}), care being taken to keep the temperature low. The product is treated with cold water to separate the amylene sulphate, and the latter, after decomposition with an alkali and rectification, yields amylene hydrate as a colourless, oily liquid, of an etherial, peculiar camphoraceous odour. It has a specific gravity of 0·815–0·820, and should boil between 212° F. and 216° F. It is soluble in water to the extent of 1 part in 8, and mixes with rectified spirit in all proportions. The characters given above suffice to ensure the purity of the drug. The most likely contaminant is amyl alcohol, which can be detected by treating with potassium bichromate and sulphuric acid. Pure amylene hydrate gives off the odour of acetone, but if amyl alcohol be present the odour of valerianic acid is also produced. The German Pharmacopœia gives the following tests: 20 cc. of a 1-in-20 watery solution should not within ten minutes decolourise 2 drops of potassium permanganate solution; and a solution of the same strength, treated with ammoniacal silver nitrate, should not, after heating on a water-bath for ten minutes, reduce the silver. These tests exclude ethyl and amyl alcohols as well as aldehyde.

Amylene hydrate was introduced three years ago as a hypnotic of the paraldehyde type, but superior to it in that it produces no unpleasant after-effects. The dose of the remedy for adults is from 45 minims to 1½ drachm, but generally a 1-drachm dose is not exceeded, it being beneficial, when small doses are not powerful enough, to combine with it a little morphine, as in the following formula:—

Amylene hydrate	10 minims
Solution of hydrochlorate of morphine ..	1 drachm
Liquid extract of liquorice	2 ,,
Peppermint-water to	3 oz.

From a third to a half of this to be taken at bedtime.

A plain mixture, composed of the dose of the hydrate in 2 drachms of glycerine and 6 drachms of peppermint-water, is preferred by some; and it is sometimes administered in capsules, each containing 15 minims.

The following formula is also also an agreeable one:

Amylene hydrate..	2 drachms
Distilled water	13 ,,
Orange-flower water	13 ,,
Syrup of orange	6 ,,

Agitate the hydrate with the waters, then add the syrup.
From one to two tablespoonfuls of this for a dose.

Antipyrin Derivatives.

Antipyrin combines very readily with certain simple and compound radicles, forming bodies which possess the physiological action of their principal constituents in a modified form. The manner in which these compounds are formed is shown in the case of *iodopyrin*, or *iodantipyrin*, a substance which has been known for some years, but which has only been studied therapeutically this year. Iodopyrin is really a compound in which an iodine atom takes the place of one of the hydrogen atoms in the phenyl group of antipyrin, so that it really is iodophenyldimethylpyrazolone, and its constitutional formula may be regarded as—

$$C_6H_4I.N2CH_3CN.C_2OH.$$

Iodopyrin occurs in needle-shaped crystals, which are tasteless and odourless. It is scarcely soluble in cold water and spirit, but dissolves more readily when the solvents are heated. It melts at 160° C. Mürzer's experiments with iodopyrin show that in doses of from 8 to 25 grains in cases of fever it exerts a good influence in reducing the temperature, patients simultaneously perspiring freely, but there is no collapse, and no subsequent shivering. It was found that the urine of the patients to whom antipyrin was administered gave strong reactions for iodine (with nitric acid and chloroform), as well as antipyrin (with nitrous acid), which the solution of iodopyrin alone does not give, so that the new remedy appears to be changed when passing through the system. *Resopyrin* is an insoluble crystalline substance obtained by mixing aqueous solutions of antipyrin and resorcin in molecular proportions. The oily body which separates is collected, and, after treatment with alcohol, is obtained in rhombic crystals. The substance is insoluble in water, but dissolves in five times its weight of alcohol (ʒj. in ℥j. S.V.R.), which solution may be mixed with water. The reactions with acids and ferric chloride are those of antipyrin and resorcin. It possesses the properties of its constituents.

Perhaps the most interesting compounds of antipyrin are those with chloral. These were first prepared by Behal and Choay in 1889, who exhibited at the Paris Exhibition specimens of monochloral-antipyrin and bichloral-antipyrin. Subsequently, Reuter, a German chemist, following up an observation that chloral hydrate and antipyrin when mixed together liquefy, was enabled to separate from the liquid crystals, which he called trichloraldehydephenyldimethylpyrazolone, which is really monochloral antipyrin, dehydrated by fusion. The mono compound can be made by dissolving 47 parts of chloral hydrate and 53 parts of antipyrin each in 50 parts of warm water, mixing the solutions, and collecting the crystalline compound which gradually separates, and recrystallising from alcohol. The purified crystals have the formula $C_{11}H_{12}N_2O.C_2HCl_3O$—the water of the chloral being liberated in the reaction. It melts at 67° to 68°, is colourless, dissolves in cold water to the extent of 1 in 12, and the solution gives the blood-red antipyrin reaction to ferric chloride, and the odour of chloroform when boiled with an alkali. By using chloral in excess crystals are obtained containing two molecules of it to one of antipyrin. This body is not very stable in presence of water. The mono compound has been introduced into medicine under the name *hypnal*. Dr. Bardet, who first spoke of them as therapeutic agents, considered both the compounds to be antispasmodics as well as hypnotics, but Professor Germain Sée, who has more recently studied them, somewhat modifies Dr. Bardet's views, especially in regard to the action of the compounds on the heart. He considers that in doses of 45 grains they are hypnotic remedies, comparable to chloral, and have no paralgesic action. They should be prohibited in cardiac cases, especially when there is any disturbance in compensation, but they may be administered with impunity in cases of aortic disease, if compensation is perfect. They have no action in dyspnœa, whether of cardiac or pulmonary origin. In some cases they seem to slightly augment diuresis, and they are almost as irritating to the digestive tube as chloral. They are much inferior to sulphonal and the other hypnotics of the chloral series (such as chloralamide and chloralimide), on account of their depressing action on the blood-vessels and heart. To that we may add that the researches of Schmidt show that the monochloral compound, or *hypnal*, is in every way safer than the bichloral one, and, it is important to note, it is more toxic than chloral itself.

Salipyrin is another compound which is of interest from the fact that observations at the dispensing-counter led up to its discovery. When antipyrin and sodium salicylate are mixed together they liquefy. Professor Spica, of Florence, found that from the liquid could be obtained a compound, antipyrin salicylate ($C_{11}H_{12}N_2O.C_7H_6O_3$), and this has since been placed on the market as salipyrin, in the form of white crystals. In the American patent for this article, otherwise called "salicylate of phenyldimethylpyrazolone," it is stated that it is manufactured by heating (preferably under pressure) phenylhydrazine, acetyl-acetic ether, and methyl-salicylic ether in the presence of a haloid hydro acid. It has been recommended for the treatment of acute rheumatism, the dosage beginning with 30 grains, and continuing with 15 grains per hour until four doses are taken, when from 10 to 30 grains may be taken every four hours.

Antipyrinum. Phenazonum, B.P. Antipyrin or Phenazone. Phenyl-dimethyl-pyrazolone. $C_6H_5(CH_3)_2.C_3HN_2O$. Sometimes called Analgesine, as well as other fanciful names.

Next to cocaine, this is the most notable new remedy which has been introduced within recent years, and may be regarded as the most important, as it is the most used, synthetic medicine. It was discovered by Ludwig Knorr in 1884, and is the subject of a patent in this country. It is made by the interaction of 100 parts of phenylhydrazin ($C_6H_5.NH.NH_2$) and 125 parts of acetyl-acetic ether ($C_2H_3O.C_2H_2O_2.C_2H_5$), which, after warming for a few hours at the temperature of a water-bath, combine. The product is washed with ether, dried, and methylated by treatment with its own weight of methyl iodide and of methyl alcohol at a temperature of 100° C. During this process the bi-molecular compound is converted into phenylmethylpyrazolone, and then the methyl iodide is tacked on to it. When the reaction is complete the product is freed from alcohol, treated with soda solution (to remove the combined iodine), and from this the antipyrin separates as an oily fluid. This is purified by shaking with ether, and the antipyrin separates from it in what the Pharmacopœia describes as "colourless and inodorous scaly crystals."

The characters and tests of this compound given by the British Pharmacopœia Additions do not require to be repeated here, and they are sufficiently precise. The most characteristic reaction is the green colour produced with nitrous acid. It is owing to this decomposition that spirit of nitrous ether should not be prescribed with antipyrin.

The principal use of antipyrin is as an analgesic. It was introduced as an antifebrifuge, and, although it undoubtedly has the property of reducing the body-temperature to a remarkable degree, when pushed beyond a certain point it is unsafe. The same applies in the case of all subjects who have heart-trouble. Ordinary doses have sometimes been fatal in such cases. It is in neuralgias that antipyrin has been most successful, and in such complaints as influenza, for which it proved a panacea. In painful menstruation, dysmenorrhœa, and the like it has also been used with benefit. Generally it is given in 10-grain doses every three hours to adults; the pharmacopœial limits are 3 to 20 grains. It is very soluble in water, and may be prescribed in mixtures with peppermint-water, or plain water and syrup of orange, to disguise the taste; but this is not very objectionable, and, on the whole, the best plan is to dispense the remedy in powders, to be dissolved in half a wineglassful of water when required.

Antiseptin.

A combination of zinc iodide with bromo-thymolate of zinc, which is used as a substitute for iodoform. It is soluble in water, and is used in ointment form, 1 part of antiseptin in 9 of lanolin, or as a dusting-powder, 1 part to 4 of powdered talc.

Randia Dumetorum.

This drug was exhibited by Messrs. Southall at the meeting of the British Medical Association in Birmingham last summer, it being included in a collection sent by Mr. David Hooper. The fruit of *Randia dumetorum* has an ancient repute as a popular medicine in India, being given in large doses as an emetic. The pericarp, especially when fresh, has a powerful and penetrating odour, due to valerianic acid. The active principle of the drug is said to be allied to saponin, which is a glucoside found in soap-bark, and also contained in senega and sarsaparilla. Randia is a common shrub in most parts of India, growing, as its second name states, in thickets. The fruit is held in high esteem by the natives on account of its emetic properties.

Sir James Sawyer has examined the drug, and reports on it to the *Lancet*. He has had four tinctures of the drug made—namely, with spirit of ether, rectified spirit, aromatic spirit of ammonia, and proof spirit, respectively, and of the strength of one part of the drug in five parts of the tincture. When any one of these tinctures is diluted with water and acidulated with acetic acid, the odour of valerian is very apparent; and it is most apparent in the tincture made with spirit of ether, and this is the tincture which he has selected for therapeutic use. The dose of tinctura randiæ dumetorum ætherealis is from 15 to 60 minims diluted with water, with which it makes a milky-looking mixture. The tincture has a strong and characteristic odour and taste, and is of a bright maize-colour. It may be given with iron, if a greenish colouration be permissible. Sir James Sawyer has used it in practice as a nervine-calmative and anti-spasmodic in cases in which vegetable anti-spasmodics, such as valerian and asafœtida, appeared to be indicated. It is also a cardiac excitant.

Trade Notes.

MR. PAUL METZ has removed his warehouse from New Zealand Avenue to 2 Manchester Avenue, E.C.

MR. G. S. MUMFORD, of Farringdon Road, E.C., intimates a reduction on his pure crushed linseed, at the same time paying carriage to railway stations in England, or half to stations in Scotland, Ireland, and Wales, on parcels of 1 cwt.

VAN HARGAN'S KOLA WINE.—By a clerical error we made this wine non-intoxicating last week. The definition really applies to kola, the preparation being made with claret and Burgundy. The wine can be obtained in three kinds—"dry," "medium," and "generous."

MESSRS. H. GILBERTSON & SONS are publishing a very useful card for the sick-room, entitled "Nurse's Instructions." This has been designed by Nurse Marian Pincoffs, and contains, on a sheet 13 inches by 8 inches, blanks for all the instructions which physicians are likely to give to nurses in regard to the treatment of patients. The sheets are supplied with or without a case at a moderate price.

MESSRS. THOMPSON, WALTERS, HOLE & CO. (LIMITED), of Curtain Road, E.C., have just issued a new illustrated price-list, in cloth covers, of druggists' sundries, surgical instruments, shop-fittings, and proprietary articles. The lists are conveniently arranged and indexed, and more than a hundred new illustrations and thirty-six more pages are added to the price-list published by this firm a year ago.

NEW RAGOEZI MINERAL WATERS.—We have had brought under our notice samples of two waters obtained from the Ragoezi springs in Halle, Saxony, which have a long-standing reputation in the neighbourhood for their medicinal properties. It is proposed, we understand, to introduce the waters into this country, and, as a preliminary step towards this, Mr. R. H. Harland, F.I.C., F.C.S., has taken samples of the waters at the wells and analysed both, his results being as follows:—

—	No 1. Grains per gallon	No. 2. Grains per gallon
Carbonate of lime	19·25	15·05
Sulphate of lime	11·90	7·47
" magnesia	16·03	10·29
" potash	4·48	4·90
" soda	21·93	15·75
Chloride of sodium	647·29	281·75
Silica	2·10	1·82
Carbonate of iron	2·24	2·52
Alumina	·07	·21
Volatile matter	2·10	·35
	727·44	340·13

In addition to the solid constituents, the water is highly charged with carbonic-acid gas (natural). The characteristics of the waters, especially of No. 2, point to their suitability as table-waters of a chalybeate tonic and slightly aperient nature. We find that they mix well with wine without altering flavour or colour, and doubtless they are desirable diluents for brandy and whisky. The form in which we have received the waters (litre bottles) is, we presume, only temporary, as smaller bottles would be much more convenient for general use. The waters have a slightly opalescent appearance, and the taste is refreshing.

THE METRIC SYSTEM is increasing in popularity in some parts of the United States—that is, amongst druggists.

Practical Notes and Formulæ

Furniture Polish.

Melt together 4 parts of paraffin, 1 part of tallow, and pour the mixture into a vessel containing hot water. Add 12 parts of oil of turpentine and stir well. Allow to stand until cold.

Perfumed Zinc Lanoliment.

Oxide of zinc	80 grains
Vaseline	50 „

Rub together until perfectly smooth, and add—

Lanoline	1 oz.
Simple ointment	3 drachms
Peruvian balsam	80 drops
Otto of rose	2 „

Lip-salve in Sticks.

Paraffin	6 drachms
Cocoa butter	6 „
White vaseline	1 oz.
Eosin	1 grain
Otto of rose	5 drops

Melt the solids and add the vaseline. Dissolve the eosin in sufficient alcohol and add to the mixture, also the perfume, and cast into suitable-sized sticks.

—*Zeit. Apoth. Verein.*

Troublesome Ointments.

M. Vindevogel's plan for getting over the difficulty in making ointments containing extracts and salts is to use tragacanth. Thus, in an ointment containing extract of belladonna and iodide of potassium, of each 1 drachm, with 1 oz. of cerate, he triturates the extract and iodide with 2 drachms of water, then adds fully 1 grain of powdered tragacanth, mixes well, and adds the cerate. In this way an ointment is produced in a few minutes as good as one upon which half an hour or more would be spent. This he communicates to the *Journal de Pharmacie* of Antwerp.

Adhesive Office-paste.

Take 4 oz. of common gelatine in small pieces and steep it in 16 oz. of water until it becomes soft, then by the aid of the heat of a water-bath dissolve it, and while still hot pour into a mixture of 2 lbs. of good flour paste and a pint of water. Heat the whole to boiling, and when thickened remove from the fire; while cooling add 6 drachms of silicate of soda and stir into the mixture with a wooden spatula. This preparation will keep good for an indefinite period, and is very adhesive. The addition of 2 drachms of oil of cloves is an improvement.

Theatrical Face-paints.

Torjesen gives the following formulæ:—

White.—Oxide of zinc, subnitrate of bismuth, and plumbate of alumina—of each, 1 oz. Mix, and make into a paste with almond oil (5 to 6 drachms required), and perfume with 12 minims of peppermint oil, 12 grains of camphor, and a drachm of ess. bouquet.

Bright Red.—Oxide of zinc, subnitrate of bismuth, and plumbate of alumina—of each, 10 drachms; eosin, $2\frac{1}{4}$ grains, dissolved in a drachm of ess. bouquet; oil of peppermint, 12 minims; camphor, 12 grains; almond oil, a sufficiency to make a paste. Mix as above.

Deep Bordeaux Red.—Oxide of zinc, subnitrate of bismuth, plumbate of alumina—of each, 15 drachms; oil of peppermint, 12 minims; camphor, 12 grains; carmine, 30 grains (dissolved in 80 minims of solution of ammonia); almond oil, a sufficiency; ess. bouquet, $1\frac{1}{2}$ drachm. Mix.

Skin Colour.—Vermilion, 3 drachms; tincture of saffron, 2 drachms; powdered orris, 5 drachms; precipitated chalk and oxide of zinc, of each, 20 drachms; camphor, 20 grains; oil of peppermint, 20 minims; ess. bouquet, $1\frac{1}{2}$ drachm; almond oil, a sufficiency. Mix.

Black.—Drop black (made by burning camphor and washing the soot with spirit), 2 drachms; almond oil, 2 drachms; cocoanut oil, 6 drachms. Mix, perfume, and cast into sticks.

Lanoline Dusting-powder.

Some months ago we gave particulars of the process whereby lanoline may be incorporated with certain powders for toilet purposes, and we subsequently mentioned that Mr. A. W. Shirley controls a patent for a process of the same nature. In Dieterich's process the solubility of lanoline in ether is taken advantage of, and thereby 5 per cent. of the wool fat is incorporated with powders without changing the free form of the powder. Mr. J. A. Martin has recently communicated a note to the Denver Pharmaceutical Association (*Rocky Mountain Druggist*), in which the author criticised Dieterich's formula, stating that it has the appearance of having been wetted or damped, and is not at all suitable for a dusting-powder, owing to the absence of a proper absorbing material. Mr. Martin himself was at some trouble to find out how to get rid of the water in lanoline, and he came to the conclusion that the best way is to dissolve the lanoline in chloroform or ether, and draw off the water after the mixture has stood for some time. But all this is unnecessary. Anhydrous lanoline can easily be obtained. To make the powder anhydrous lanoline is dissolved in 2 parts of ether, the solution rubbed up with sufficient carbonate of magnesia to equal three times the weight of dry lanoline used, exposed to the ordinary temperature until no traces of ether remain, and reduced to fine powder. We thus obtain a dry powder containing 25 per cent. of anhydrous lanoline. Any desirable addition can be made to this in the shape of perfume or diluent powders, such as starch, talc, or boric acid.

What to do with Overdoses.

The Dakota Pharmaceutical Association has been concerned about the most prudent course which a druggist can take when in doubt as to an apparent overdose in a prescription, and Mr. J. H. Marshall undertook to get a census of opinion from pharmacists and physicians about the matter. Out of 40 pharmacists 39 said they would consult the prescriber if they had such a case to deal with, and, failing that, 16 said they would refuse to dispense the medicine, but another 16 said they would put in a safe dose, and 8 had not enough mind of their own to give any opinion on the point. It is a very difficult thing for the dispenser to know what to do when the prescriber insists on a toxic dose being dispensed. Two only of the Dakota 40 would agree to dispense the prescription in these circumstances, 20 declared they would refuse. We presume it was one of the two who adds to his reply, "I would insist on marking prescription 'overdose,' and asking him to administer. I had a case calling for $6\frac{1}{3}$ grains permanganate, potash for a child—the physician reduced dose to 6 grains; the child climbed the golden stairs. It was said to be a dispensation of Providence. I called it too much permanganate potash. I marked prescription and box 'overdose under protest." The physicians who were consulted had opinions, very like these. There were 30 replies from them. In regard to the overdose 23 said, "Consult the prescriber," two were for "refuse," three for "reduce," and one for "return to the writer." Should the prescriber not be handy, 14 said "refuse to dispense," 13 said "reduce the dose," and 3 said "consult a medical man friendly to the writer." We do not remember having seen this last piece of advice before. He would be a bold man who would act upon it, and we can imagine the ire of the writer of the prescription when he hears that a "friendly" professional neighbour has had his carelessness brought before him. But what is the dispenser to do, after all? Opinion is equally divided in Dakota, and we suspect it would be the same here. Nor does Mr. Marshall help us much, although none could say anything fairer than what he says—viz., "No universal rule can be given, no fixed line can be drawn; the character and ability of the physician, the idiosyncrasies of the patient should be known, then when the time comes we may make our election of just what at the time seems advisable. If the physician is a lover of the contents of 'original packages,' this would complicate matters somewhat. While due precaution against accident should always be taken, a drunken or uneducated physician should always be shunned. All druggists, like a military commander, must have common sense, judgment, quick decision, and always err, if at all, on the safe side. Make the action fit the circumstances."

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, &c. Original, Selected, and Translated.

Bismuth Oxyiodide.

According to C. Astre (*J. Pharm.*), the best way to obtain a pure subiodide of bismuth free from subnitrate is to decompose bismuth potassium iodide by the addition of water, washing until iodine is no longer removed. The resulting compound contains Bi, 59 38, and I, 36 30 per cent.

Oil of Wintergreen.

Mr J. B. Nagelvoort states that, in spite of all that has been written about the difference between betula and gaultheria oils, a certain manufacturer of betula oil in Pennsylvania persists in selling his oil. Perhaps we can scarcely blame him for that, although it is very wicked of him; but Mr. Nagelvoort gives in the *Pharm. Rundschau* of New York further particulars for detecting the sophistication, and points out various factors which may be taken as pharmacopœial standards. It will suffice to note here that the specific gravities of the two oils are closely alike; Mr. Nagelvoort's figures for betula oil being 1·180, and gaultheria oil 1·188, and the former, tested by Hübl's iodine-absorption method, absorbed 1·7 per cent. of iodine, and the latter 2·2 per cent., the conditions being the same in both cases.

A New Pigment Bacterium.

At a recent meeting of the Amsterdam Royal Academy of Sciences Mr. Beyerinck read a paper on the life history of a pigment bacterium. This organism (*Bacillus cyaneo-fuscus*) is the cause of a much-feared local colouring process in Dutch cheese, called "blue illness"; and of "black glue," a calamity observed in a gelatine factory. The natural habitat of the organism is ditch-water and ground-water. It is a peptone-bacterium, *i.e.*, it can be fed with albuminous matter alone. Hence, a $\frac{1}{2}$-per-cent. solution of peptone in water is sufficient nutriment; gelatine, egg albumen, fibrin, and casein are also, each alone, sufficient, but they are peptonised, before absorption, by the secretion of a powerful enzyme. The bacterium produces two pigments—one, deep blue spherites; the second, a dark brown diffusible colouring-matter. On this account a peptone solution acted upon by the organism becomes quite black.

Jambul Bark.

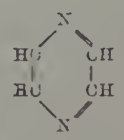
Dr. Neumann Wender, in a pharmacognostic study of *Eugenia Jambolana*, Lamarck, contributed to the *Druggists' Bulletin*, states that the fruit of the plant was mentioned by the great Arabian traveller, Ibu Batuta, as far back as 1332. There has been more written about the seeds than of the bark, and, an opportunity having occurred, Dr. Neumann examined the latter, and found it to be hard, occurring in large pieces up to 1 cm. thick, and covered externally with reddish and grey braids or scales; which may be easily rubbed off. The bark, freed from these braids, then possesses a reddish-yellow exterior. Inside the bark is dark brown, longitudinally fibred. The fracture is fibrous, the taste astringent from the proportion of tannic acid contained in it. Simple contact of the cross-section of the bark with solution of ferric chloride reveals at once the tannin. A cross-section of the bark permits the distinguishing of two differently-coloured layers, separated from each other by a slight line. The outer bright brown one is nearly 2 mm. broad, with deep fissures, and rough, lumpy upper surface. In its cross-section numerous concentric slight dark lines may be distinguished. The inner part of the bark, pink to chocolate-brown, possesses a smooth, longitudinal-fibred, brown inner surface, and is two to three times as broad as the outer part. In the brown ground-mass of the inner cross-section of the bark numerous white spots and points may be seen in almost concentric arrangement, imparting to this portion of the bark a marble-like appearance. The rather large spots, which may be seen even with the naked eye, are characteristic of the genus.

Estimation of Glycerine in Soap.

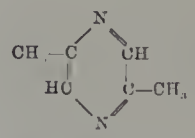
Mr. L. J. Spencer, of the Michigan School of Pharmacy, has successfully employed the following method for estimating glycerine in soaps (*Phar. Record*). Take 5 grammes of the soap, dissolve in hot water, decompose with dilute sulphuric acid, allow to stand for half an hour, then separate the isolated fatty acids by filtration and wash the filter with a little water, neutralise the filtrate with barium carbonate, and filter; wash the filter with a little water and evaporate the filtrate on a water-bath at 100° C. to a syrupy consistence. This residue consists of the glycerine and certain organic matters that may be present, such as colouring matter. The glycerine is extracted with a mixture of ether 1 part and 95 per cent. alcohol 3 parts. On filtering, the filter is washed with a little of same solvent, the filtrate evaporated on a water-bath and extraction repeated twice more. Then evaporate to a constant weight, place in a desiccator, and weigh. From the weight of the glycerine calculate the percentage. Out of 12 samples of so-called glycerine soap half of them contained none. The others yielded quantities varying from 6 to 36 per cent., and it is noticeable that all containing more than 10 per cent. were softish soaps, those with less were "hard" or "very hard." Two of the latter claimed to contain 33 per cent. of glycerine, but 6 and 7 per cent. was all that could be got out of them. A good reliable qualitative test for glycerine is to treat the substance to be tested with a little pyrogallic acid and a few drops of dilute sulphuric acid, then boil, when the mixture will turn red. Now add a little stannous chloride, and a beautiful violet red is produced.

A New Class of Organic Bases,

resembling the pyridine series in constitution but containing two atoms of nitrogen, have been synthetically prepared by Dr. Stoehr, of the University of Kiel, and are described in the latest issue of the *Journal für praktische Chemie*. They were obtained as secondary products in the reactions between glycerine and ammonium salts. Their general formula is $C_nH_{2n-4}N_2$, and they appear to be the higher homologues of the diamine $C_4H_4N_2$,



which bears the same relation to pyridine as the latter bears to benzene. They are rendered doubly interesting by the fact that Dr. Stoehr has also discovered their presence in the products of distillation of the alkaloid brucine. The best-investigated member of the series ($C_6H_8N_2$) is a clear colourless liquid, just slightly heavier than water, its sp. gr. at 0° being 1 0079. It boils constantly without decomposition at 153·5°–154° C. (corr.), and determinations of its vapour density at the temperature of naphthalene vapour by Victor Meyer's method yield numbers pointing to the above molecular composition. From its reactions it appears to be the dimethyl derivative of the primary diamine, and may consequently possess the constitution



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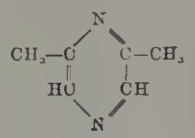

It exhibits almost all the properties of the pyridine bases. Its odour is very similar to that of the higher members of that series, but reminds one, at the same time, of the narcotic bases, particularly nicotine. It is soluble in water, dissolving with such considerable rise of temperature as to indicate the formation of a hydrate; it is precipitated from its aqueous solution on the addition of potash. It is, curiously, nearly as soluble in cold water as in hot—a phenomenon which is familiar to us in the case of common salt. Its salts are most remarkably like those of the pyridines, and the peculiarities exhibited by the latter are strongly accentuated in them. Thus the hydrochloride ($C_6H_8N_2$ HCl) is deliquescent and sublimes below 100°.—*Nature.*

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 Cannon Street, March 25.

THE near approach of the Easter holidays has influenced business in the drug and chemical markets considerably, and transactions have been rather few and of comparatively small importance. Drugs are generally very quiet, fine chemicals dull, spices in most cases favour buyers, but in fixed oils a firm tone prevails, and prices in many instances are tending upwards. Refined camphor is dearer, quinine flat and neglected, cream of tartar, citric and tartaric acids dull and quiet. In drugs the principal changes are a slight decline in the value of cinchona bark, and a decided improvement in the price of raw camphor. Castor oil is also somewhat firmer, and higher values are predicted for American oil of peppermint and geraninm oil. Honey and bees' wax are firmly held; opinm is flat and dnll of sale; star-anise oil has sold at easier rates, and cod-liver oil is much less firm. In drysalteries and spices the principal changes are as follow:—Higher: Cotton-seed oil, olive oil (manufacturing), palm oil, rape oil, shellac, and gambier. Lower: Zanzibar cloves, black and white pepper, pimento, Madagascar gum animi, sulphate of copper, gum damar, Manila, copal, and kowrie.

The Bank rate remains unchanged at 3 per cent. Bar-silver is quoted to-day at $44\frac{5}{8}$, against 45 on the 18th inst.; and the Easter exchanges are lower, the following being the quotations to day and on the 18th inst. respectively:—Bombay, 1*s* $5\frac{1}{16}$*d.*, against 1*s.* $5\frac{1}{4}$*d.*; Calcutta, 1*s.* $5\frac{1}{16}$*d*, against 1*s.* $5\frac{1}{4}$*d.*; Hong-Kong, 3*s.* $2\frac{3}{8}$*d.*, against 3*s.* $2\frac{3}{4}$*d.*; Shanghai, 4*s.* $5\frac{3}{8}$*d.*, against 4*s.* $5\frac{3}{4}$*d.*

The Roumanian Customs Tariff.—A Tariff Revision Bill has been presented to the Roumanian Legislature. It proposes to increase the duties on certain goods of which the mannfactnre is established or considered possible in Roumania, and to reduce duties in other directions. The proposals regarding pharmaceutical articles are as follows:—Increase: Common soaps of all grades, from 30f. to 40f. per 100 kilos. Redncti ons: Surgical instruments, from 160f. to 80f. per 100 kilos; alcohol, from 100f. to 75f. Perfumery of all kinds will remain stationary at 120f., and toilet soaps at 180f., per 100 kilos.

The German Colonies.—According to official statistical information recently published in Berlin, the total commerce of Germany with her colonies in the year 1889 amounted to about 450,000*l.* The German colonies are roughly divided into three sections. The most important of these is the African West Coast, inclnding the Camcroons, Togoland, and the German ports of South-west Africa, which are now attracting some attention here in connection with their snggested prospective cession to the coming South African Union. Next follow the German East African possessions; and, finally, New Guinea. The figures for each section are as follows:—

—	German West Africa	German East Africa	German New Guinea	Total
	Mks.	Mks.	Mks.	Mks.
Imports	4,363,000	256,000	10,000	4,629,000
Exports	4,165,000	311,000	509,000	4,985,000
Total ..	8,528,000	567,000	519,000	9,617,000

Nearly 2 millions of marks of the German imports from the colonies consist of "agricultural products"—palm-kernels, coprah and earth-nuts. Next comes rubber, valued at about $1\frac{1}{2}$ million of marks, mostly from Western Africa; and, finally, ivory, spices, coffee, and cocoa, with some cloves from the East Coast, and logwood and gum arabic from the West. Germany exported to her colonies "drugs and dyestuffs" to the valne of 1,190,000 marks; but this section, curiously enough, includes, and is, in fact, almost wholly composed of, the item "gunpowder." New Guinea has taken 20,000 marks' worth of tartaric acid.

Java Produce.—The exports of the principal drugs and spices from Java during the last five years (January 1—December 31) have been as follows:—

—	1886	1887	1888	1889	1890
Cinchona Amst. lbs.	2,272,394	2,905,785	3,636 028	4,839 370	6,628,307
Cubebs .. piculs	—	—	1 8	1,114	1,373
Pepper .. „	35,006	19,544	27,989	41,024	35,432
Nutmegs .. „	912	2,314	1 850	4,899	1,667
Mace .. „	107	356	549	698	303
Cloves .. „	925	355	131	1,741	306
Cinnamon and cassia .. „	3,250	2,211	774	1,679	2,901

The Policy of Depressing Quinine.—In our correspondence columns will be found a letter from Messrs. Howards & Sons, taking exception, so far as their firm is concerned, to a paragraph in our Editorial Note of last week on "Quinine and Java Cinchona." The paragraph spoke of "the avowed, if unintelligible, policy of at least one of the English manufacturers to depress quinine." As Messrs. Howards & Sons deny having pursued such a policy, we, of course, accept their assurance as a fact. But we may, perhaps, be allowed to point out that the feeling that they did pursue a policy of depressing quinine has not been confined to ourselves. It prevailed very widely on 'Change and elsewhere in the early days of this year. In our report of January 3 last we recorded that: "Quinine . . . has been in good request, and prices improved slowly until to-day, when the market again became noticeably weaker. This morning it was announced that Messrs. Howards & Sons had reduced their quotation by 1*d.* per oz., their brand in bulk being reduced to 1*s.* 5*d.*, and in vials to 1*s.* 7*d.* per oz. The announcement of this reduction appears to have created some surprise." Until Messrs. Howards reduced their quotation that day the price of German quinine was slowly creeping upwards, and speculative brands in second hands had advanced from 12*d.* to $12\frac{3}{4}$*d.* within a few days.

We may here point out that the figure 46,400, which is given as representing the production of nine cinchona plantations, shonld have been 464,000. Further, though this does not affect the argument, the well known line runs: "All that we know is, nothing can be known," not "nothing can be done."

Cinchona in Brazil.—There is a cinchona plantation, it appears, at Theresopolis, in Brazil, which contains already over 20,000 trees. Analyses of the bark produced there are said to have shown an average equivalent of 1 92 per cent. of quinine sulphate. The Brazilian Government have instructed Professor W. Michler, of the Rio Polytechnic School, to make a series of fresh analyses of the Brazilian bark and report upon the prospects of the culture.

The Next Cinchona Sales.—At Tuesday's auctions the question was asked whether there would be an auction sale on April 7. As nobody appeared to know of any reason why not, it was agreed that the usual sales due on that day are to take place, parcels of which samples are not ready by Saturday to be excluded.

Acid (Citric).—Quiet, and rather dull, at 1*s.* $7\frac{1}{8}$*d.* to 1*s* $7\frac{3}{4}$*d.* per lb. The price for juice is quoted at 23*l.* 10*s.* f.o.b., to-day. It is said that the shipments of citric acid have been very heavy lately, 10 tons being reported within three days, mostly to Spain and the Australian colonies.

ACID (TARTARIC).—Dull of sale, and quiet at 1*s.* 2¾*d.* to 1*s.* 3*d.* per lb., according to quality.

ALOES.—There has been a good demand for *Cape* aloes, and in the absence of further supplies from South Africa it is not unlikely that more money will be asked by the holders.

CAMPHOR (CRUDE). The market has been somewhat excited this week, chiefly owing to speculative purchases from the Continent. Raw Japan camphor has been sold on the spot at 160*s.* per cwt.; and now, we hear, 170*s.* is asked. For delivery March-April shipment some business is reported at 135*s.* per cwt., c.i.f. terms, but we believe that a few days ago a transaction was actually concluded at about 133*s.* The other sales reported during the week include 10 tons in Havre, spot, at 150*s.* per cwt.; ditto near at hand, 145*s.* per cwt., c.i.f.; and 28 tons China camphor, also near at hand, at from 140*s.* to 145*s.* per cwt., c.i.f. terms.

CAMPHOR (REFINED).—On March 21 the English makers by agreement advanced their prices 1*d.* per lb. all round, *bells* being now quoted at 1*s.* 11*d.* per lb. German camphor is also dearer, 1*s.* 10*d.* per lb. net being to-day's quotation.

CANTHARIDES.—Market quiet, and more or less nominal. For Russian, 4*s.* per lb. is asked on the spot, but less would be accepted for future shipment. A small consignment of 1 cwt. of Japanese cantharides (*Epicanta gorrhami*) was recently imported in Hamburg. The flies are smaller than the Russian cantharides and possess a less pungent flavour. The wings on the outside are black, with slight brown horizontal stripes; the head is reddish and comparatively large. According to statements by the Japanese exporters, these flies are said to possess stronger blistering properties than any other known varieties.

CARDAMOMS.—The following figures represent the shipments from British India for the nine months ending December 31:—

Years	1888	1889	1890
lbs.	154,747	100,863	117,477

CINCHONA.—The fortnightly auctions which took place here on Tuesday were rather heavier than their recent predecessors. They consisted of:—

	Packages		Packages	
Ceylon cinchona	780	of which	633	were sold
East Indian cinchona ..	2,086	"	1,814	"
South American cinchona ..	475	"	177	"
Java " ..	234	"	256	"
African West Coast " ..	28	"	28	"
Total	3,653	"	2,908	"

The assortment was distinguished by the unusual predominance of East Indian bark, mostly from Beypore and Calicut, and nearly all of recent import. The bulk of this consisted of *Succirubra*, including several parcels of very good chips and shavings, and there was also a fair quantity of *Ledger* bark, but the *Officinalis* barks were badly represented. The sales generally passed off flat and lower, especially towards the end, holders selling freely. Some of the brokers at the close of the sales declared that the prices obtained were absolutely the lowest ever accepted in public sale in London. The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Brunswick works	255,674
" American and Italian works	159,115
" French works	61,796
" Frankfort o/M. and Stuttgart works ..	54,636
" Mannheim and Amsterdam works ..	34,740
" Auerbach works	28,776
Messrs. Howards & Sons	20,600
Mr. Thomas Whiffen	10,527
Sundry druggists	43,603
Total quantity sold	669,667
Bought in or withdrawn	114,147
Total quantity offered	783,814

The exports of cinchona from Java during the month of January were 73,999 lbs.

The unit cannot be quoted higher than 1⅛*d.* per lb. The following are the prices obtained for sound bark:—

CEYLON CINCHONA.—*Original.*—Red varieties: Common weak and dusty to good bright chips, 1½*d.* to 3*d.*; chips and shavings mixed, 2*d.* to 3*d.*; ordinary dull spoke-shavings, 1½*d.* to 1¾*d.*; dusty root, 1¾*d.* to 2*d.*; partly renewed chips, 1½*d.* to 3*d.* per lb. Yellow varieties: Fair to good chips, 3½*d.* to 5*d.*; stem chips, 5¾*d.* to 6*d.*; chips and shavings mixed, 6*d.* per lb. Grey varieties: Ordinary, partly quilly chips, 2½*d.* to 4*d.*; spoke-shavings, 3*d.*; dull chips and root mixed, 4*d.*; fair to good rich root, 4½*d.* to 7*d.* per lb. Hybrid chips, dull to fair quilly, 1½*d.* to 4*d.*; ordinary dusty root, 1¾*d.* per lb. *Renewed.*—Fair chips, 2½*d.* to 3*d.*; shavings, 2*d.* to 2½*d.*; yellow chips, 6*d.*; grey chips, 4½*d.* to 6½*d.*; fair ditto shavings, 7*d.*; hybrid chips, 6*d.* per lb.

EAST INDIAN CINCHONA.—*Original.*—Red varieties: A large quantity weak to good bright quilly chips, 1½*d.* up to 5*d.*; spoke shavings from 1½*d.* to 3*d.*; root 3*d.* per lb. Yellow varieties: Ordinary weak to good quilly chips, 3*d.* up to 7½*d.*; fair to fine bright shavings, 5*d.* to 7½*d.*; damaged shavings, 4½*d.* to 5*d.* Grey varieties: Ordinary to fair quilly branch and stem chips, 2½*d.* to 4½*d.*; ordinary shavings, 2½*d.*; thin twigs, 1½*d.*; root, 4*d.* per lb.; hybrid shavings, 2¼*d.* to 4½*d.* per lb. *Renewed.*—Red varieties: A large quantity of stem and branch chips, poor to fair bright quilly, 2½*d.* to 5*d.*; chips and shavings mixed, 2½*d.* to 4*d.*; fair to bright spoke-shavings, 2*d.* to 5¼*d.* per lb.; yellow chips, 3½*d.* to 5*d.*; good shavings, 7½*d.* per lb.; grey chips from 3¾*d.* to 6*d.*

SOUTH AMERICAN BARK.—Of 393 packages cultivated Bolivian Calisaya, 130 (altogether 8,420 lbs.) sold at 7½*d.* to 8*d.* for fair sound quill, and from 7½*d.* down to 3½*d.* for damaged quill and chips. Of 82 packages hard Pitayo, imported in 1890, the damages, consisting of 47 packages, sold at 1½*d.* per lb.; 18 packages red bark were offered, of which 16 were disposed of with good competition; fair, part flat, part quilly, damaged partly, of good colour and bold (873 lbs.), at from 5*s.* 9*d.* to 6*s.* 9*d.* per lb.; ordinary quilly ditto (255 lbs.), at 1*s.* 6*d.* per lb.

JAVA CINCHONA.—Ledger chips sold at from 2*d.* up to 8*d.* per lb., sweepings at 1*d.*, and root at 3*d.* to 3½*d.* per lb.

WEST AFRICAN CINCHONA.—A parcel of 28 packages of Calisaya character, fair broken druggists' quill (4,704 lbs.), all damaged, imported *viâ* Lisbon, sold at from 2½*d.* to 5*d.* per lb.

The following are the exports of cinchona bark from British India during the period between April 1 and December 31 of the last three years:—

Years	1888	1889	1890
lbs.	1,450,018	782,836	1,222,583

East Indian bark continues to arrive in large quantities. The *Ajax* brought 1,172 packages this week from Beypore and Calicut. In the Java Government cinchona plantations' report for the fourth quarter of 1890 it is stated that, owing to excessive rains in October and November, and the succeeding drought and cold, some damage has been done to the spring plantations, but this can easily be remedied by the large number of young plants in the nurseries. The older plantations have developed exceedingly well during the last few months, and the crop prospects for 1891 are very favourable. The total crop (druggists' and manufacturing barks) in 1890 was 450,000 half-kilos.

Although the bark-production in 1890 has considerably decreased, that decrease, says the director of the plantations, is not by any means owing to a decrease of the bark available on the plantations. It has been caused by the diminution in the harvesting of all barks, especially of the Ledger barks. This diminution of the output has been decided upon, as it has been proved that the *Helopeltis Antonii* and the caterpillar which caused so much damage of late years rarely or never attach very closely planted gardens. The stock of bark in such plantations has very much increased in 1890 in spite of somewhat unfavourable climatic conditions. The cinchona-seed offered by public auction in November and December was exceedingly well competed for, especially the Ledger seed, of which the supply was small. The prices obtained for this greatly exceeded the limits placed upon the seed by Government.

CREAM OF TARTAR.—Market steady but quiet, at 98*s.* 6*d.* to 99*s.* per cwt. for best white French crystals, and 100*s.* to 101*s.* per cwt. for German powder.

CUBEBS are still arriving freely. The entries this week amount to 116 packages, of which 80 *viâ* Holland and 36 *viâ*

Singapore, and every sign points to a further decrease in the value of the article. Fifty-four parcels were shipped from Java in January, all to Holland.

CUTCH.—At Tuesday's auctions 1,469 boxes cutch were offered, of which about 300 sold, mostly "without reserve," at 28*s.* to 29*s.* for "Bull" and "Eagle" block, 27*s.* for ACL block, and from 9*s.* 6*d.* down to 5*s.* per cwt. for common adulterated brands.

ERGOT OF RYE.—Quiet; for good Spanish 1*s.* 1½*d.* per lb. would be accepted.

GAMBIER.—*Block* is dearer; there are now no sellers on the spot under 23*s.* per cwt. We hear that some business was done at that figure to-day. For shipment February-March sales have been made at 22*s.* 10½*d.* to 23*s.* per cwt. c.i.f. At the weekly drysaltery auctions 229 packages were offered, but nearly all bought in. A few lots sea-damaged cubes sold at 28*s.* to 29*s.* 9*d.* per cwt.

GUM ARABIC.—A fair business is said to have been transacted privately at firm prices. Ordinary to fine Kurrachee *Amrad* at 60*s.* to 75*s.* per cwt. Some business in *Niger* gum was reported from Liverpool, a few days ago, at 35*s.* der cwt. for fair quality.

HONEY.—Prices keep rather firm; fair amber *Californian* is reported to have changed hands at 43*s.* per cwt. this week. In Liverpool 100 barrels Chilian, second pile, sold at 97*s.* 6*d.* per cwt. on Tuesday.

JALAP.—The market is very firm, and it is reported that an offer of 1*s.* 3*d.* per lb. has been refused for some rather lean Vera Cruz. Good quality is held for 1*s.* 6*d.* to 1*s.* 8*d.* per lb.

MUSK.—The following are the shipments of musk from Shanghai during the years 1889 and 1890:—

To London, in 1889	..	710 caddies.	In 1890	..	793 caddies.
,, New York ,,	..	305 ,,	,,	..	170 ,,
,, Paris ,,	..	1,193 ,,	,,	..	224 ,,
,, Hamburg ,,	..	128 ,,	,,	..	69 ,,
		2,336			1,256

The decline in the shipments to Paris is significant, as it seems to indicate that the "Musc Baur" has obtained a firmer footing in that market than was generally expected.

NUX VOMICA.—Prices are well maintained. There has been an arrival of 600 bags from Calicut this week, and one of 177 bags from Bombay.

OIL (CASTOR).—The market is steady, and in Liverpool quotations are rather higher—3¼*d.* to 3⅜*d.* per lb. being now quoted for good Calcutta seconds, French oil is worth 3⅝*d.* and 3 3/16*d.* per lb. for first and second pressings respectively. There is very little to be had for shipment.

OIL (COD-LIVER).—The tone of the market has been decidedly easier this week, with much less inclination on the part of buyers to operate. But the weakness of the market appears to be owing rather to speculative influence than to any improved reports from the fisheries. New season's non-congealing oil has been offering at 85*s.* per barrel, c.i.f. terms, but to-day's prices are slightly firmer, and 86*s.* for c.i.f. London is the nearest quotation.

OILS (ESSENTIAL).—*Star-anise* oil is tending lower, and it is said that a few days ago 6*s.* 6*d.* per lb. was accepted on the spot for genuine oil in old-fashioned packages. *Otto of Rose*: Reports are current that the coming crop will be a small one, and higher prices may be looked for; but it seems very early as yet to give any definite information with regard to the coming crop. Italian oils are rather quiet just now, but prices remain firm, and some of the Italian shippers maintain that prices will advance considerably in a few months, as the stocks, they say, are running low. Oil of *Lemon* is quoted at 6*s.* to 9*s* per lb, according to quality; and *Bergamot* from 11*s* to 13*s.* 6*d.* per lb. News comes from Algeria and Spain that the growing crop of *Geranium* has suffered considerably from frost, and is likely to be a very small one; the first distilling will soon commence. American *Oil of Peppermint* is said to be a little firmer, but we think it would still be possible to buy H.G.H. oil at 14*s.* 3*d.* per lb. on the spot. The market for oil of *Lemongrass* is quiet at 1⅝*d.* to 1¾*d.* per oz. on the spot. For shipment, there has been some business a few days ago at 1 7/16*d.* per oz., c.i.f. London, for March-May shipment.

OILS (VARIOUS).—*Cocoanut oil*: Firmly held—good Cochin at 36*s.*, and fine Ceylon at 30*s.* per cwt. on the spot. The price for arrival for Ceylon oil is 28*s.* 6*d.*, c.i.f. terms. *Cotton-seed oil*: Dearer, with a firm market. Crude oil on the spot, 19*s.* 6*d.*; refined, 22*s.* 9*d.* per cwt. In Liverpool American refined is held for 22*s.* to 22*s.* 3*d*, and Liverpool refined about 3*d.* under that price; Hull quotations, 19*s.* 7½*d* naked, and 18*s.* 3*d.* for crude oil. *Linseed oil*: Steady, but without much business; the spot price is 22*s.* 6*d.* to 22*s.* 9*d.*; Liverpool firm, export casks, 23*s.* 6*d.*; Hull quotation, 21*s.* 1½*d.* for naked oil. *Olive oil*: A strong and rising market for cargo oils, while quotations are rather higher—Spanish oil being held for 42*s.* 6*d.* to 43*s.*; Messina at 41*s.* to 42*s.*; and Mogadore at 38*s.* per cwt. *Palm oil*: Firm, with very little available on the spot. The London price for fine Lagos oil is 27*s*, and in Liverpool there are sellers at 26*s.* *Petroleum*: Without alteration—American, 5 11/16*d.* to 5⅞*d.*; Russian, 4⅞*d.* to 5⅛*d* per gallon. *Rape oil*: Very firmly held at 28*s.* 6*d.* for brown and 30*s.* for refined oil. Liverpool quotes 31*s.* 6*d.* for refined English, 32*s.* 6*d.* ditto French, and 34*s.* to 34*s.* 6*d.* for Stettin oil. *Turpentine*: Steady; American, on the spot, 29*s.* 9*d.* to 30*s.* per cwt.

ORRIS ROOT.—Arrivals are coming in somewhat more freely from Italy, 85 packages, in four consignments, having reached us thence this week.

QUICKSILVER.—A quiet market. The principal importer's price is 8*l.* 5*s.* per bottle, but second-hand holders offer 8*l.* 3*s.* The arrivals this week have been 5,000 bottles from Spain and about 650 from Italy. The production of quicksilver in California in 1890 was the smallest for many seasons, the following being the figures since 1886:

Year	1886	1887	1888	1889	1890
Bottles	23,981	33,760	33,250	25,650	22,926

There are ten mines actually in exploitation at present, but New Almaden alone yields more than half the production.

QUILLAIA.—Much dearer. There is little or nothing offering, and it is, therefore, difficult to give any exact quotations, but 30*l.* per ton is being asked.

QUININE.—The market is dull, and no business reported. The nominal quotations are: Sellers 10½*d.*, buyers 10*d.* per oz., for second-hand German quinine in bulk.

SHELLAC.—At Tuesday's auctions 1,263 cases were offered, 569 of which found buyers at a partial advance of about 1*s.* per cwt. on second orange. Button lac was about 2*s.* dearer and garnet, of which the supply is very small, realised 67*s.* per cwt. for somewhat cuby AC. Orange lac sold as follows: Good bright unworked seconds, 70*s.* to 71*s.*; good fair ditto, 66*s.* to 67*s.*; fair reddish ditto, 64*s.* to 65*s.*; common livery to fair red, worked and unworked, 60*s* to 64*s.* per cwt. Button lac realised 74*s.* to 76*s.* for fair to good first, 70*s.* to 72*s.* for ordinary to good seconds, and 69*s.* to 70*s.* per cwt. for ordinary to fair thirds. To-day 100 cases seconds button lac are reported sold at 68*s.* per cwt., c.i.f. terms, for March-May shipment.

SPICES.—*Cloves* dull and lower: Zanzibars changed hands at 4*d.* per lb. for fair quality on the spot a few days ago, but at to-day's auction that figure was not obtainable, and 485 bales were all bought in. For good but unpicked Penang 6*d.* to 6½*d.* per lb. was paid; for delivery the market is also dull and easier. *Chillies*: In Liverpool African chillies have sold at 50*s.* per cwt. this week. *Ginger* is quiet, and without much demand: 30 cases old Cochin sold at to-day's auctions at 32*s.* for washed and wormy; 90 barrels Jamaica were disposed of at 69*s.* to 72*s.* for dull ordinary, 74*s.* 6*d.* to 77*s.* for medium washed, and 80*s.* to 89*s.* for fair to bold ditto; for African ginger of old import 23*s.* 6*d.* has been paid in Liverpool. *Mace* quiet, but fairly steady: West Indian, according to quality, 2*s.* 2*d.* to 2*s* 7*d.*; Penang pickings, 2*s.* 3*d*; Bombay medium reddish, 2*s.* 6*d.* per lb., sold to-day. *Nutmegs* quiet, but unchanged: West Indian sold to-day at the following prices:—117's at 2*s.* 1*d.*, 100's to 109's 2*s.* 5*d.* to 2*s.* 3*d.*, and Bombay (195 to 185) at 2*s.* 5*d.* to 2*s.* 8*d.* per lb. *Black pepper* lower: good Aleppy sold at 5*d.* at auction; Singapore for forward

delivery, April-June shipment, has been done at $\frac{9}{16}d.$ per lb *White pepper* fully $\frac{1}{4}d.$ easier: at the sales about 180 bags fair to good Penang sold at $5\frac{3}{4}d.$ to $5\frac{7}{8}d.$; 147 bags fair Siam at $7\frac{3}{8}d.$ to $7\frac{1}{2}d.$ per lb. *Pimento* also lower, with sales of about 700 bags, common dull and stalky mixed to good, at $2\frac{1}{4}d.$ to $2\frac{3}{8}d.$ per lb.

TEA.—The tea market wears a holiday look, only very small China sales being held this week, and no Indian or Ceylon sales after Tuesday. Prices, however, firm all round, Assams on Monday selling at steady rates for all lower grades, though finer teas are rather neglected. Ceylons on Tuesday recovered part of the fall of last week for teas under $10\frac{1}{2}d$, and a good tone prevailed, though the demand for medium Ceylons is less active. Finest Ceylons, however, are wanted, and realise good prices. On the terminal market the quotation for Congou "spot" is $6\frac{3}{16}d.$, and Assam $10\frac{7}{16}d.$ to $10\frac{1}{2}d.$

WAX (BEES').—All varieties remain exceedingly firm. For a parcel of very dark Madagascar wax 6*l.* 5*s.* per cwt. was paid a few days ago.

CHEMICALS IN THE NORTH OF ENGLAND.

THE market for heavy chemicals has been quietly steady during the past week, and prices on the whole have been fairly well maintained, the only exception being in the case of *Sulphate of copper*, which is rather easier.

BICARBONATE OF SODA quiet, but steady, at 7*l.* per ton in 1-cwt. kegs, f.o.b. Liverpool.

BLEACHING POWDER.—More business doing in this article in the Tyne district, and for one special brand, "Tennants," an advance of 5*s.* per ton is asked; other makers quote 6*l.* 15*s.* per ton in softwood casks, and 7*l.* per ton in hardwood casks, net cash, f.o.b. Tyne. Liverpool prices are firm at 6*l.* 15*s.* per ton in softwoods, and 7*l.* per ton in hardwoods, f.o.b. Delivered on rails at makers' works, Widnes and St. Helen's, price is 6*l.* 12*s.* 6*d.* per ton net.

CAUSTIC SODA firm at 12*l.* to 12*l.* 2*s* 6*d.* per ton for 74-per-cent., 11*l.* per ton for 70-per-cent., and 9*l.* 15*s.* per ton for 60-per-cent., all net cash, f.o.b. Liverpool; 77-per-cent., 12*l.* 10*s.* per ton; and 70-per-cent., 11*l.* 5*s.* per ton, net, f.o.b. Tyne.

CHLORATE OF POTASH quiet at $5\frac{1}{2}d.$ per lb, less 5 per cent. discount, at usual ports of shipment.

CREAM CAUSTIC unchanged at 9*l.* 7*s.* 6*d.* per ton on rails at makers' works, and 9*l.* 10*s.* per ton f.o.b. Liverpool, net cash.

HYPOSULPHITE OF SODA.—Good demand, and prices firm. Makers quote 5-7-cwt. casks at 6*l.* 10*s.* per ton, and 1-cwt. kegs 7*l.* per ton, net cash, f.o.b. Tyne; 7*l.* and 7*l.* 10*s.* per ton, c.i.f. Liverpool; and 7*l.* 2*s.* 6*d.* and 7*l.* 12*s.* 6*d.* per ton delivered Manchester in 10-ton lots.

SODA ASH in good demand at 5*l.* 2*s.* 6*d.* per ton for 48-per-cent., and 5*l.* 11*s* 3*d.* per ton for 52-per-cent. *Caustic ash*; *Carbonated*, 48-per-cent., 5*l.* 7*s* 6*d.* per ton, and 52-per-cent. 5*l.* 16*s* 3*d.* per ton, net cash, f.o.b. Liverpool. *Carbonated Ash* quoted $1\frac{3}{8}d.$ per degree, less $3\frac{1}{2}$ per cent. discount, f.o.b. Tyne.

SODA CRYSTALS quiet at 2*l.* 16*s* per ton, gross weight, f.o.b. Tyne, and 3*l.* 10*s* per ton in 3-cwt. barrels, f.o.b. Liverpool, with 2*s.* 6*d.* a ton allowance if taken on rails at makers' works.

SULPHATE OF COPPER easier at 16*l.* 10*s.* per ton, prompt delivery, f.o.b. Liverpool.

SULPHATE OF SODA quiet at 42*s.* 6*d.* per ton in bulk, and 53*s.* per ton ground and packed in casks, f.o.b. Tyne, and 40*s.* to 42*s.* 6*d.* per ton in bulk on rails at makers' works, Widnes and St. Helen's.

MISCELLANEOUS CHEMICALS.—*Alum* (loose lump), 5*l.* 2*s* 6d. to 5*l.* 5*s.* per ton f.o.b. Liverpool; *Aluminate of soda*, 32*l.* 10*s.* per ton f.o.b. Tyne; *Bichromate of potash*, $3\frac{3}{4}d$ per lb., less 8 per cent., f.o.b. Liverpool; *Bichromate of soda*, $2\frac{3}{4}d.$ per lb., less 8 per cent., f.o.b. Liverpool; *Blanc fixe*, 7*l.* 10*s* per ton f.o.b. Tyne; *Carbonate of alumina*, 27*l.* 10*s.* per ton f.o.b. Tyne; *Chloride of barium*, 7*l.* 15*s.* per ton f.o.b. Tyne; *Chloride of calcium*, 2*l.* 5*s.* to 2*l.* 7*s.* 6*d.* per ton in drums, and 5*s.* per ton extra in casks, f.o.b. Liverpool; *Hydrate of barium*, 8*l.* 10*s.* per ton f.o.b. Tyne; *Nitrate of baryta* in crystals, 18*l.* 15*s* per ton; ditto ground, 19*l.* 5*s.* per ton, f.o.b. Tyne; *Nitrate of soda*, 9*l.* to 9*l.* 5*s.* ex quay Liverpool; *Sal ammoniac*, 37*s.* and 35*s.* per cwt. for first and second quality f.o.b. Liverpool; *Silicate of soda* solution, 140 Tw., 4*l.* 7*s.* 6*d.* to 4*l.* 10*s.* per ton f.o.b. Liverpool; 140 Tw., 4*l.* 5*s.* per ton f.o.b. Tyne; 100 Tw. 3*l.* 15*s* per ton f.o.b. Tyne; 75 Tw., 2*l.* 17*s.* 6*d.* per ton f.o.b. Tyne. Pure *Sulphate of alumina* for Turkey-red dyeing, 5*l.* 10*s.* per ton in casks and 5*l.* 5*s.* per ton in bags f.o.b. Liverpool; pure white sulphate of alumina in casks, 4*l.* 15*s.* per ton f.o.b. Tyne; *Sulphate of ammonia*, 24-per-cent., 11*l.* 10*s.* to 11*l.* 12*s.* 6*d.* per ton f.o.b. Liverpool; *Sulphide of barium*, 5*l.* 10*s.* per ton f.o.b. Tyne; *Sulphur* (*recovered*), in 2 cwt. bags, 7*l.* per ton f.o.r. Gateshead or f.o.b. Tyne; nominal price of rock, 6*l.* 10*s.*; roll, 7*l* 15*s.* to 8*l.* 10*s.*; flowers, 9*l.* 5*s.* to 10*l.*, all net cash, f.o.b. Liverpool.

WILLS OF DECEASED CHEMISTS.

The will of Heneage Parker Catterns, late of 30 Church Street, Camberwell, S.E., pharmaceutical chemist, was proved at the Principal Registry, Somerset House, in November last. The will is dated April 24, 1885, and the gross value of the personal estate is 839*l.* 19*s.* 3*d.* The executors are the Rev. Thos. E. S. Catterns, Oswaldtwistle, Lancashire, Mr. W. H. Cheetham, Brixton Road, S.E., pharmaceutical chemist, and the sister of the deceased, Frances Ann Catterns, to whom he bequeaths the whole of his property. Should his sister, however, predecease him the property is left in equal shares to the Rev. T. E. Catterns and Mary Boxer, his widowed sister.

The will of the late John M. F. C. Brumleu, of Mincing Lane, and Moss Bank, Sideup, drug and chemical merchant, who died on January 10, has been proved at the Principal Registry, Somerset House, by his two sons and daughter, Frederick Brumleu, William Brumleu, and Caroline Brumleu, who act as executors and trustees. The gross amount of the personal estate is 5,598*l.* 12*s.* 11*d.* After a legacy of 100*l.* to his wife, the testator bequeaths to her his residence, Moss Bank, together with all his furniture and personal effects, and further empowers the executors to sell and convert the whole of the remainder of the estate to be held in trust for his wife during her lifetime, and in the event of her decease to pass to his children, with remainder if they should die to their children, if any. The testator also bequeaths his business of a merchant in Mincing Lane to his two sons, Frederick and William Brumleu.

The will of William Cornish, chemist and druggist, formerly of 174 Western Road, Brighton, but late of Ditchling Rise, Preston, Sussex, has been proved. The will is dated November 19, 1883, and the executors and trustees are Thomasin Cornish, widow of the deceased, and Alfred T. Cornish, son. After a legacy of 20*l* to his daughter-in-law, Mary Ann Cornish, the testator bequeaths the whole of his real and residue of his personal estate, furniture, plate, &c., in trust for his wife during her lifetime, with remainder to his daughters, Mary Smale Cornish and Maria E. Cornish, who shall also receive the income from certain property and interest on securities specified, during the life of the former, with remainder in respect to part of the property to his son A. F. Cornish. The gross amount of the personal estate is 1,125*l.* 19*s* 2*d.* By a codicil, bearing same date as the will, the testator revokes the legacy of 20*l.* to his daughter-in-law in certain conditions, and directs that the rents, issues, and annual profits of his property in Shirley Street shall be paid to his daughters during their lifetime.

Obituary.

WALKER.—On March 3, Mr. Ralph Dearlove Walker, chemist and druggist, Vicar Street, Kidderminster. Aged 50.

WESTON.—At Newquay, Cornwall, on March 13, Frederick Weston, chemist, son of the late Charles Weston, of Peterborough. Aged 47.

Correspondence

Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Remnants of Ancient Pharmacy.

SIR,—I am mnch interested in the articles which have appeared in your valuable journal on "Ancient Pharmacy." I also have a number of these old jars in very good preservation; also some with spouts. They belonged to a family of Derbyshire doctors for at least three generations, the last of whom died in 1848, aged 81 years. I think my jars are older than any I have seen mentioned so far. I am sending you a list herewith.

I have only one jar with date on it. I believe the others, or some of them, are even older than that one.

I hope others will contribute to this very interesting subject.

MATHRIDAT:	DE: CAPPARIB
W:W	DE: MYRRH
1665	COCHLE. MIN
POMATV	FÆTIDÆ
P: RUFFI	ALEPHANG
P: DE: CVNOGL	P: SGVIBVS
P: DE: SUCCIN	ALOES. ROSAT.
P: MATHEI	FL. PÆONIE
P: MASTICH	DE. PAPAV. ERRA
P: RVDIJ	CAPILL: VENER
EX. DVOBVS	DE. CICH. CVR. HAB
DE: ABSINTH	S. CORT: AVRANT

The Park Pharmacy, Chapel-en-le Frith. I remain yours truly, JAMES T. GRAY.

SIR,—In last week's issne of your valuable and interesting jonrnal you challenge old pharmacies to vie in point of age with the one at Knaresborough.

Last year, when pulling down our ancient premises, well known by the sign of "Ye Golden Keye," many an interesting discovery was made. Underneath the several floors of the shop came to light coins dating back to Henry VIII.'s time, which, by appearance and position, had evidently dropped through openings in boards in or about the respective years of circulation. Filling np a hole in an old cabinet made some 200 years ago was unearthed the celebrated Dr. Wm. Harvey's "Two Anatomical Exercitations on the Blood," printed 1673 Under the basement-flooring a hard substance was felt, which, when uncovered, proved to be an iron mortar bearing the date "1520"

We think these facts retain for our old drug-shop the proud position of being the oldest up to date.

Although w a:e not the fortunate possessors of so nnique a cabinet of "simples" as the one so graphically portrayed in the last issue of THE CHEMIST AND DRUGGIST, yet we are the owners of pharmacy treasures as remote in age. An old picture, to wit, recovered from the walls of our old building, and which has excited much notice from those who feel an interest in ancient London. The picture depicts our shop as it stood in the days of bluff King Hal. The liberty of Norton Folley was deemed to be of sufficient importance to be named in Domesday Book, yea, ere that, was commented on by the Venerable Bede, A D. 800. Occupied by the Monastery of St. Mary's Spital, afterwards destroyed under the edict of Henry VIII, the site of this monastery was eventually appropriated by a French colony of Huguenots on their flight from France, and to them we aie indebted for the ever-famous Spitalfields silk.

"Ye Golden Keye," 20 Norton Folgate. Yours very faithfully, J. BEEDZLER & CO.

The Depression in Quinine.

SIR,—We note in your valuable article on "Quinine and Java Cinchona" the following sentence:—

"The avowed, if unintelligible, policy of at least one of the English manufacturers to depress quinine," &c., &c.

This is certainly news and fresh intelligence to Stratford, near London, E., March 21. Yours, &c., HOWARDS & SONS.

Electricity in Tooth-extraction.

SIR,—I have read with some little amusement, in your issue of March 21, your account of the meeting of a party of medical men at 35 Fitzroy Square to witness a new (?) method of extracting teeth without pain.

Why, Sir, in my young days (about 1862, I think) I well recollect going to a Quaker gentleman, a dentist of the name of Seth Gill, in Liverpool, and his asking me to have my tooth, which I had gone to have removed, taken out with the aid of electricity, only I am inclined to think his plan is preferable to that which you describe. His *modus operandi* was a comfortable easy-chair, the one pole of the current grasped by the hand of the patient on the side from which the tooth was to be extracted, whilst the other pole was affixed to the handle of the forceps. Now, instead of subjecting the patient to any unnecessary and uncomfortable sensation, no current passed at all until, the forceps being well hold of the tooth, the operator placed his left foot on a spring on the floor by the chair, thus completing the circuit at the moment of giving the pull. A strong current immediately passed from the hand up the arm into the root of the tooth, and, heigh, presto! the molar was out without pain. I have repeatedly asked dentists why they do not adopt some such device, and they have smiled incredulously; but now the light has dawned they have something new! I am, Sir, neither dentist nor doctor, but your amused correspondent,

H. T. KNIGHT.

249 Evering Road, Clapton, March 23.

The Sale of Dangerous Chemicals.

SIR,—Permit me to refer to the case investigated at Barhill Farm by Mr. Coroner Churton and a jury. The sales of such articles as mineral acids and mercury, and a host of other poisonous preparations, are not prohibited nor in the slightest degree restricted by the Legislature, but, on the contrary, are of everyday sale and demand by any person who thinks fit to deal in them for various purposes, medicinal, scientific, and in the arts and manufactures. The Sale of Food and Drugs Act, we all know, requires chemists and other traders to supply articles of the "substance and nature demanded." In the unfortunate case under investigation it was simply a question of trade policy to supply or refuse to supply the customer demanding such articles. The latter alternative would doubtless have proved the more sensible and judicious under the circumstances, but the chemist who effected the sale, thus slightly contributing to the disaster, was strictly within his legal rights, especially after the assurance of his customer, who "knew how to use it," and ought not to have been subjected to a harsh and adverse criticism. But how does Dr. Churton the worthy coroner who administered so indignant a reproof, stand? He is supposed to know the law, and how to administer it. He says "it would have been a very wise thing to have largely diluted the nitric acid." He thus advises and incites, by a process of adulteration, to a flagrant breach of the law above quoted, rendering the chemist (in this case) liable to heavy penalties, and involving him and his business in practical discredit and ruin. Such questionable advice does not come with good grace from an authority of "fifty years' experience" in the administration of the law. Any person demanding such articles has a *primâ facie* right to obtain them of the "nature and substance demanded." It is,

however, a questionable policy to supply persons ignorant of their properties with such articles, but, having done so, I fail to see any sufficient reason for the coroner to criticise and censure the chemist as he did and condemn as "deadly poisons" what the Legislature tacitly admits do not come within this category. The jury, with commendable discretion, imputed no blame to the chemist, who was nevertheless severely handled by the coroner. As a private individual, no one has called greater public attention, from time to time, to the state of the law as to the unrestricted sale of poisons and the abuses arising therefrom, and no one sympathises more with sufferers by disaster from such causes, than myself. But as the law now stands anyone may traffic in what the coroner characterises "deadly poisons" without any restrictions whatever, so that it is not so limited a question that chemists (who certainly know more about "such stuff" than Mr. Coroner or most others) should be specially set up as targets to receive the chance shots or be so roughly handled even by so experienced an individual. Give us a workable pharmacy law, with as many restrictions as you please for the public safety, but do not so unceremoniously and unwarrantably administer reproof in cases where it is practically as unnecessary as it is unjust.

I am, Sir, faithfully yours,

56 Everton Road, Liverpool. JAMES PHILLIPS.

SIR,—We all deplore the fearful accidents that happen now and again through the use of nitric acid and aquafortis. Masters should caution their assistants and apprentices as to the dangerous use of such strong acids. I know of several instances where, if it had not been for the warning, apprentices might have suffered bodily harm through parties wishing nitric acid and quicksilver mixed in a bottle. The best plan is, when such is wanted and a competent man not present, to ask the customer to call again. There is a mixture commonly used in Edinburgh—viz., turpentine, nitric acid, and olive oil—which, if mixed in the order given, might produce very serious results. I found the best plan of mixing to be to add the nitric acid very slowly to the olive oil, and set aside for one hour, then add the turpentine. It is said to be a good remedy for rheumatism.

J. STIRLING.

Wooldridge's Gout-tincture.

SIR,—I see in your last issue a report of a coroner's inquest upon a man at Peckham Rye, who died of hæmorrhage on the brain produced by excessive sickness, which was said to have arisen from carbonate of potassium which he had taken in a dose of Wooldridge's gout-tincture.

I beg to state that there is no carbonate of potassium in the gout-tincture. There is in each dose a small quantity (considerably less than 5 grains) of bicarbonate of potassium, which is, of course, universally held to be one of the best and most harmless of medicines.

I am, your obedient servant,

JOHN WOOLDRIDGE.

9 Great St. Helen's, London, E.C., March 18.

Drugs in Brazil.

SIR,—Amongst the South American notes which appeared in last week's journal, I find there a comparison drawn between the respective values of drugs as imported in Rio de Janeiro and Buenos Ayres.

Although agreeing almost *in toto* with this excellent article, I have to take exception to one statement made in the notes, which declares that "owing to the duties pure drugs are not to be met with or found in Brazil."

This is probably an oversight on the part of your correspondent, as the tarifa (or scale of Custom House charges) in Brazil does not depend or vary according to the quality of the drug or article imported, but is determined and fixed by the name and nature of the chemical or drug *itself*.

Roots, herbs, and leaves pay 480 reis (about 8*d*. of our money at the present rate of bank exchange) a kilo Again, iodide of potassium, for example, were it to be of the best or impurest manufacture, would be subject to an impost of, I think, 6 milreis (or about 9*s*. present exchange) the kilo., according to Brazilian dues.

It is obvious, therefore, that, in all interests, it is the object of firms, when buying, to order the best and purest drugs they can find on the home market.

The respective dues in the River Plate and in Brazil are pretty well alike as regards drugs, although owing to the general bankrupt state and financial crisis which at present reigns in the former Republic, circumstances may have considerably changed. Yours truly,

FLUMINEUSE. (11/8.)

Beecham's Prosecutions.

SIR, From the numerous cases of above prosecutions reported in THE CHEMIST AND DRUGGIST, one is inclined to ask—Have the rigid examinations of the Pharmaceutical Society, after increasing the qualification of chemists, lowered their moral character? It is painful to think that gentlemen depending on the confidence of the public, as chemists have to do, should for the sake of a penny risk both business and reputation. Every chemist receives occasionally an order for a pennyworth of Beecham's pills. Is it not, in that case, more becoming the dignity of our profession to refuse to sell in any but original boxes, rather than palm off our own manufacture under an assumed name? It is time the public should understand that if they wish to indulge in a dose of patent pills they must pay for them, as they have to do for every other luxury. We as a body are crying out for protection of our interests from the incursions of stores, grocers, &c., and still some of our number are doing their utmost, by illegal dealing, to bring disgrace on our calling and throw the trade into those people's hand.

To put an end to the necessity for such humiliating prosecutions, would it not be well for the Pharmaceutical Society, instead of agitating for the new Pharmacy Bill, to approach the Inland Revenue authorities, and ask them so to have the law amended that it will be illegal to open and sell pills out of any box bearing the patent-medicine stamp.

I am, &c.,

SCOT. (9/56.)

Chemists' Windows.

SIR,—When wandering about town and glancing into the different shop-windows one cannot help being struck with the want of taste, originality, and, in many cases, cleanliness which is displayed in chemists' windows. Here and there you find one with the glass and brass bright as a new pin, and the articles inside clean, neatly wrapped and labelled, and shown to the greatest advantage; but, on the whole, chemists' windows present an appearance of neglect, careless and hasty wrapping, and dirty labels, the goods being thrown in promiscuously, as it were, and without any pretence to taste or orderly arrangement. It may be that chemists do not depend upon their windows as a medium for creating sales, and that the articles in the business do not afford opportunities for making a display so as to produce windows which will attract the passers-by and arrest their attention and lead to "biz" But is this so? The time was when a few bottled snakes and two or three fancy jars were considered quite the correct thing for a chemist's window; since then, owing to stores and cutting prices, the chemist has been compelled to put up proprietary articles of his own; and it is these which constitute the best-paying part of his business, which one would expect to find his window set out with—not with patent medicines and articles which all the world knows "can be obtained at all chemists," the profit of any single one of which, being dissolved, and the solution submitted to the action of SH_2, would give only a slight, if any, perceptible precipitate. Bottles and labels are cheap, and colourable imitations, as far as water is concerned, are allowable, and every facility at hand to produce dummies *ad lib.* to make an attractive show to suit all seasons of the year.

The public are drawn, naturally enough, to those shops which are cleanest, well lighted, and made attractive in some form or other, and they judge from the outside appearance, as a matter of course. In respect to his windows, the chemist and druggist seems to forget this, and belies his well-earned reputation for neatness and order in the despatch of his goods inside the shop, leaving an impression that he attaches no value to his window, and therefore neglects the same.

Some time ago I remember reading in your valuable columns some really useful ideas for making a window look well, and that of massing in sufficient quantities of a few proprietaries only seems a long way ahead of, and more businesslike than, the way generally adopted of placing a little of everything, and anyhow, in the window, and replacing the same, together with the inevitable bottles of inseparable lime-juice and glycerine, whose appearance, in many cases, might well suggest their removal to another, fitter if not a brighter, place—the dust-bin.

Yours respectfully,
A SUMMER BIRD.

Unjust.

SIR,—Coroners and others blame and censure qualified chemists for selling poisonous substances not on the schedule, even when the druggist goes out of his way to impress his customer with the fact that the article applied for is not a plaything.

I never heard of any censure administered to an oilshop proprietor who had sold carbolic acid in an unlabelled bottle.

The authorities graciously ignore the breach in the law by scores of unqualified vermin-destroyers, who advertise in the newspapers that they will—and do—send 1*s*, 5*s*., or 10*s*. worth of poison by parcel-post to perfect strangers, these poisons consisting of arsenic or strychnine—the only "red tape" required is that the order be accompanied by the cash.

Yours,
FAIR PLAY. (2/53.)

Copies of Prescription.

SIR,—The surest way to get rid of a customer is to refuse to give a copy of a prescription.

The next best is to give the copy asked for—as, in 95 per cent. of cases, the concession at once closes the account.

Yours,
PERPLEXED. (2/53.)

What is Meant?

Solut. hydr. perchlorid. .. .. .. ℥iv.
Strength to make each teaspoonful = 1 in 5,000.
Sig. Add two teaspoonfuls to half-gallon of water for bath.

The above is a copy of a prescription. We should like to have opinions, on post-cards, as to how much of the perchloride should be used. The most votes will decide one way or the other, as an individual opinion, except of the prescriber, is useless.

LEGAL QUERIES.

9/30. *Viator.*—You wrote us a long narrative explaining the position very clearly, and at the end you put your question, "What will be his position as regards dispensing scheduled poisons in this manner?" Our reply was precise and exact. You went on to say that you presumed the person referred to would be liable to prosecution under the Apothecaries Act. We did not disturb that presumption, as it was so obvious. He would not only be liable to prosecution, but, if prosecuted, would, we should think, be certain of conviction. If we have not now met your inquiry you must put it in some other form.

10/16. *Sigilia.*—The validity of the partnership contract would probably be unaffected by the fact that the person concerned was not qualified when it was made. But as you do not give us the terms of it we cannot say positively. It might be so expressed that a litigious person might raise a point upon it, and we should recommend you now to have a new deed executed.

8/6. *J. A. H.*—You will not have to provide a block simply for the registration of a word. The forms themselves will give you the necessary instructions.

11/21. *W. S.*—You cannot now get on the Dentists' Register without attending the courses and passing the examinations. For particulars see last Educational number of this journal, September 20, 1890.

11/18. *Phenol.*—Your account of the proceedings (C. *v.* T.) is incomplete. We cannot gather what case C. had against T., or can have against you. The agreement you have signed amounts to very little. It only bars you from pleading in defence unreasonable delay in commencing proceedings. But what there is for you to defend we are unable to make out. It appears to be alleged that you were infringing some patent-rights belonging to C., but you do not make the point clear. You had far better take all the papers to a respectable solicitor and let him advise you when he has ascertained all the facts.

MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

5/36. *Fossiline.*—(1) **Hectograph Ink.**—September 20, 1890, p. 432. (2) **Phosphate-of-Iron Lozenges.**—You can make these with the same basis as troch. ferri redact., B.P. For children 1 grain of the phosphate to each lozenge will suffice.

6/61. *Red Ink.*—See our 1891 DIARY and the last and current volumes for ink formulæ.

261/34. *Tuberculosis.*—The Pharmacopœia directs you to evaporate the aqueous bael liquor to 13 oz., then to add 3 oz. of spirit. If the editor has not thought fit to trouble himself about contraction of volume, there is no reason why you should. **Applications for Students' Corner Samples** must be made in distinct communications. This is a special department of our office which we must manage in our own way, and we expect students to conform to our wishes.

6/25. *Alpha.*—(1) **Estimate the Percentage of Oil in Crushed Linseed** by treating 100 grains of the seed with methylated ether until it ceases to dissolve anything out. Collect the linseed on a filter-paper, dry and weigh. The loss gives you the percentage of oil in grains. (2) You cannot make oil of mustard by adding the essential oil to linseed oil. The amount of essential oil of mustard in the expressed oil of the seeds is too small (probably it does not exceed 0·1 per cent.) to suggest that its properties are due to that.

260/74. *J. A. R. B.*—A Gaeffe's dry battery would be most suitable for electric light for a carriage. With all the requisites the installation will cost 21*s*. per light at least. Please communicate with our advertisers in this department.

8/72. *Dragon.*—You should use up the mixture for liniments. It would not pay you to separate the oils.

5/42. **Quinine and Iron Mixture.**—The quantity given in the formula on March 14 is intended for half-a-dozen, not one dozen, bottles, our correspondent informs us.

4/37. *Hotspur.*—The water used for making the **Mucilage** is saturated with the hydronaphthol. It takes up a fraction of a grain in each ounce. The odour is faint in such a weak solution.

5/6. *P. R. C.*—Please experiment with the formula a little, or refer us to the one you mean. Your second request violates the rule which we print almost weekly.

230/7. *W. E. E.*—**Veterinary Iron Tonic.**—We quote the following from our "Veterinary Counter Practice," shortly to be published:—"Take 30 oz. liq ferri perchlor. fort., dilute with 2 pints of water, and add liquor ammoniæ in slight excess; allow to stand for one hour, and work the precipitate by decantation until the washings give no precipitate with nitrate-of-silver solution; throw the precipitated oxide of iron on a filter, and drain well. Now dilute 5 oz. more of liq. ferri perchlor. fort. with 1 pint of water, and dissolve in it the precipitate obtained above, adding hydrochloric acid if necessary, and make the solution measure 140 oz. The result is a dark red-brown liquid, 1 oz. containing the equivalent of 32 grains of ferric oxide. The dose for horses and cattle is 1 to 2 oz diluted with water to 10 oz." This solution may be mixed with aromatics or bitter medicines.

5/28. *Room Attic.*—(1) The formula for Ung. Resinæ Acidum (Mach. Inf.) is given in our issue of February 22, 1890, p. 274. (2) **Rheumatic Pills.**—There is no specific of much importance that can be made into a pill. The following is fairly effectual:—

	Grains
Powdered guaiacum resin	100
" rhubarb	50
Extract of colchicum	8
" nux vomica	6
" taraxacum	A sufficiency

Make into a mass, and divide into 50 pills.

A pill to be taken morning and evening. (3) **Rheumatism Mixtures**—March 22, 1890, p. 428, and January 31, 1891, p. 186. (4) **Rheumatic Liniment.**—Try the following:—

	Oz.
Capsicum, bruised	1
Alkanet	½
Oil of cajuput	2
" turpentine	10
Camphorated oil	6

Macerate for fourteen days, and filter.

If a stronger preparation is desired, 2 oz. of chloroform of aconite may be added; but the liniment is preferable without it, as the addition brings it within the poisons schedule. (5) You share the common but mistaken belief that **Methylated Spirit can Legally be used for Making Liniment** of any kind. A few articles are allowed to be made, these including aconite, belladonna, compound camphor, and soap liniment, but the use of methylated spirit in any other medical compound whatever is illegal, unless authorised by the Board of Inland Revenue. This authority can be obtained in suitable cases on application.

1/48. *A. V.* (Madrid).—**Liquid Extract of Pomegranate.**—The following formula, though somewhat involved, provides a palateable and effectual preparation:—Infuse 6 oz. of coarse-powdered pomegranate root-bark in 48 oz. of water at 140° F., acidulated with a few drops of acetic acid. Maintain the temperature for twelve hours, agitating occasionally, then strain. Repeat the infusion twice, then mix the three infusions, add solution of acetate of lead until no more matter is precipitated. Filter, and saturate the filtrate with sulphuretted hydrogen gas. Again filter, and evaporate the filtrate at 140° F. until the residue is of the consistence of a syrup. Make up to 2 oz. with syrup of orange. This makes a single draught. The method was proposed by Mr. Louis Siebold some years ago, and the draught is generally regarded as one of the best and most reliable preparations of pomegranate. You may also make it by a modification of the Dutch Pharmacopœia process as follows:—

	Oz.
Pomegranate root-bark in No 40 powder ..	10
Glycerine	1
Proof spirit	12
Water	6

Damp the drug with a sufficiency of a mixture of the glycerine and 8 oz. of the proof spirit, then pack in a percolator and percolate, using the whole of the mixture. Reserve this percolate and continue percolation with the remainder of the spirit and then the water. Evaporate this percolate to a syrupy consistence, mix with the first one, make up to 10 oz. with proof spirit, and filter if necessary.

The dose of this is from 1 to 2 drachms. (2) A generally **Useful Cement** can be made by steeping 1 oz. of isinglass in 3 oz. of water until it swells up, then add 1 oz. of glacial acetic acid, and dissolve by the heat of a water-bath.

260/65. *Delta.*—You may reduce the quantity of the wax in the furniture-cream, but what is wanted is more "elbow-grease."

5/39. *Henry.*—We have not seen the term used. It can only be arbitrary, as free alkali is as much the cause of scouring as the soap itself. It might suffice to express the scouring-power in terms of dry soap present in the sample.

6/42. *Juvenis.*—**Fel Bovinum Purificatum** is mainly composed of glycocholate and taurocholate of soda. That is why the Pharmacopœia puts it under sodium, as a preparation containing sodium.

7/71. *W. W.*—Are you sure that it is a film on the glass, and not opacity produced by the action of gases in dissolving some of the glass away? We suspect the latter. If so, there is no remedy except polishing.

7/28. *R. R.*—**Heliotrope Sachet:**—

Orris-root, in powder	27 oz.
Sweet orange-peel, in powder	51 "
East India sandalwood, in powder ..	3 "
Ambergris	1 gr.
Coumarin	5 grs.
Heliotropin	45 "
Otto of rose	130 min.
Oil of rose geranium	30 "
Oil of neroli	30 "
Oil of Ylang-Ylang	12 "
Oil of bitter almonds	6 "
Essence of jasmin	4 oz.

Mix.

8/65. *Pil. Scillæ Co.* asks us why dec. aloes co. conc. is not made 1 to 7 like other concentrated preparations. How innocent we are! Fifteen ounces of compound tincture of cardamoms in 50 oz. of the decoction, and yet it is squeezed down to 12½ oz.

8/8. *W. J. F.*—You must try again, modifying if necessary. We have had most successful reports.

Information Supplied.

Recess-Label Bottles.—*Sigma* (260/30) adds to previous communications that he has had these bottles in use for four years, and they look as fresh as the first day they were put up, which could not be said of the ordinary labelled bottles, especially those containing strong tinctures and spirits. If an accident happens to a bottle and the label remains intact, it can be easily removed and fixed on another bottle, thus saving the cost of relabelling. As regards the labels cracking, he has only found two or three in that condition, and that soon after he received them, which were changed without any further charge.

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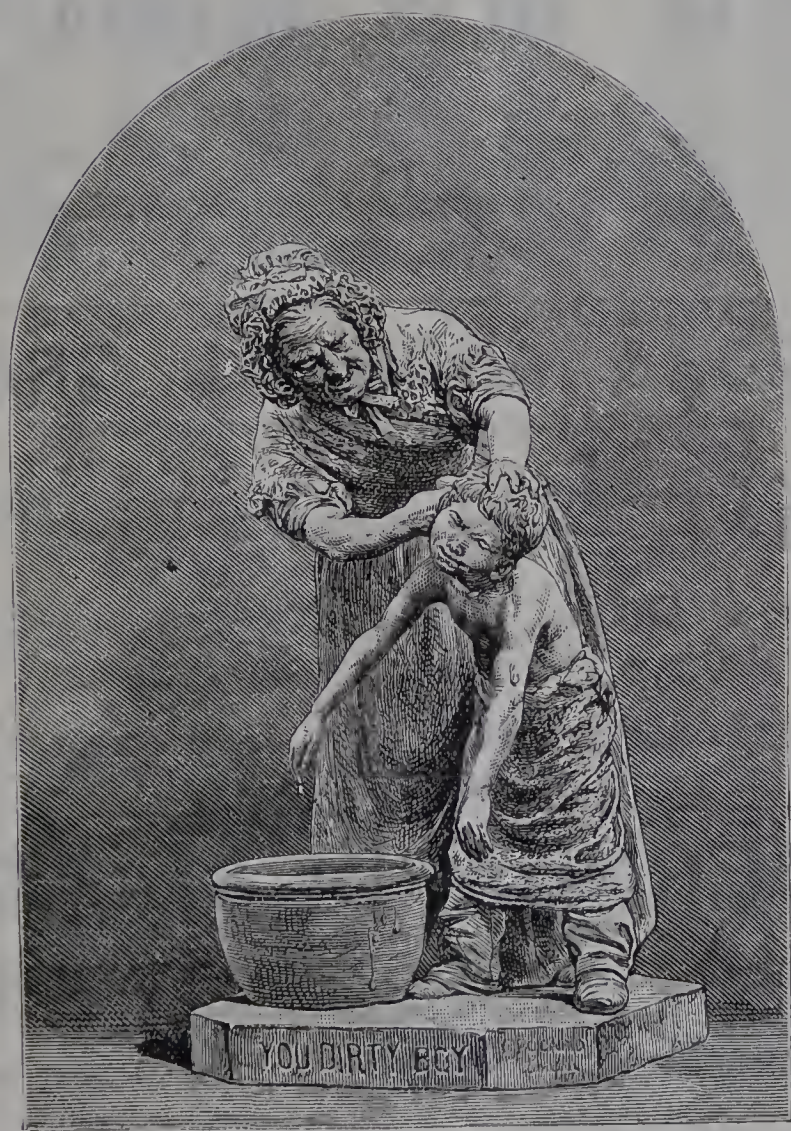

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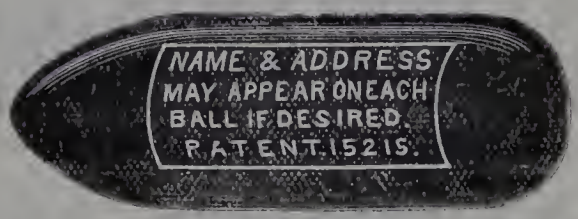

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Manufactured on the spot with the latest ENGLISH Machinery, by ENGLISHMEN, and in an ENGLISH Colony. The Oil is guaranteed absolutely pure.

It is put up in Sealed Bottles and small Cases, suitable for all markets.

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THE ONLY GENUINE MINT ALCOHOL IS

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Recommended by the highest Medical Authoritie for Indigestion Stomach Ache, Heartburn, and Headache. It dispels immediately all uncomfortable feeling. Indispensable during the hot weather. An excellent article for the Toilet and Teeth. A grand Preservative during periods of Epidemics.

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METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.

Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d

COMPOUND ANÆSTHETIC ETHER,

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For promoting the Healing of Wounds by the first intention In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d and 4s. 6d.; 16-oz., 12s.

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Containing Pure Vegetable Ivory Charcoal.

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The increasing demand for these celebrated Smelling Salts has induced the Proprietor to bring them out in a more portable and elegant form than hitherto supplied. The New-shaped Bottles will be found well worth the attention of the Trade.

WHITE FLINT GLASS, Handsomely Cut, 4 Sizes, Retail 6d. 1/6, 2/-, 2/6

" " " Watch Shape, for the Pocket, 3 Sizes, Retail.. .. .. 1/-, 1/6, 2/-

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SMELLING SALTS.—The MONOCARBONATE OF AMMONIA, manufactured by ALFRED ALLCHIN, is the Neutral Salt so much valued for the preparation of Smelling Salts. It retains its pungency as long as any Salt remains. 1-lb. bottles, 2s. 8d. each.

LIQ. AMMON. ODORIF., or VOLATILE ESS., for Allchin's Ammon. Monocarb. In Stoppered Bottles, 4-oz., 1s. 8d.; 8-oz. 3s.; 16-oz., 6s. each.

PUNGENTS, with handsome Cut Stoppers, filled with Allchin's Smelling Salts, 8s. per doz.; retail, 1s.

OL. ROSÆ. CONCENT.—One ounce of this Concentrated Solution of Anchusine, mixed with two pounds of Oil, will give it the usual colour; it is also admirably adapted for colouring Pomades, Lip Salve, Camphor Balls, &c. 4s. per lb.

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Sole Proprietors—

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TO BE HAD OF ALL THE WHOLESALE HOUSES.

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OF

PILLS & GRANULES

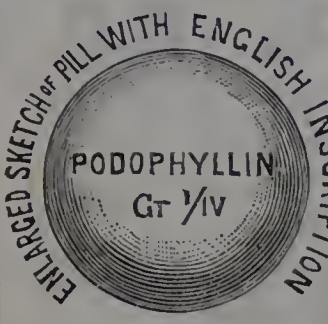
BY

A. CHAMPIGNY et CIE., Successors to MAISON L. FRERE,

19 rue Jacob, PARIS.

Received the only Gold Medal given to Pharmaceutical Products at the Paris Universal Exhibition, 1878.

Gold Also awarded at the International Exhibitions of MELBOURNE, 1880; AMSTERDAM, 1883; SYDNEY, 1888; PARIS, 1889. **Medals**



The names and weights of the active substances are printed very clearly on each pill or granule. The object of an easily read inscription, such as this, is to obviate those errors which may so easily occur in handling ordinary granules. The seriousness of such mistakes is a direct consequence of the action of the substances employed. The inscription gives every security both to the invalid and the doctor. The process of manufacturing printed pills and granules makes it possible to obtain absolute homogeneous masses, in which the active principles are uniformly distributed and mathematically dosed. The covering is of a nature which preserves the most changeable medicaments, such as iodide of iron, in all climates. All our various pills and granules are further distinguished by the colour of their covering. The printing is done by means of lampblack, and the colouring matter employed for the coverings is entirely of a vegetable nature.

EXTRACT FROM PRICE LIST FRENCH PHARMACOPŒIA.

Names of Substances	Weights: French Milligram	Weights: English Grains	Prices: Bottles of 100, viz. 8½ doz.	Names of Substances	Weights: French Centigram	Weights: English Grains	Prices: Bottles of 50, viz. 4½ doz.	Names of Substances	Weights: French Centigram	Weights: English Grains	Prices: Bottles of 50, viz. 4½ doz.
			d.				s. d.				s. d.
Amorphous Aconitina ..	1/2	1/120	8	Acetate of Morphia ..	1	1/6	1 3	Codeina	1	1/6	1 8
Crystallised Aconitina ..	1/10	1/600	8	Salicylic Acid	10	1 2/3	0 7	"	2½	5/12	2 0
Arseniate of Soda	1	1/60	6	Aloes	10	1 2/3	0 7	"	5	5/6	2 10
Arseniate of Strychnia ..	1/2	1/120	8	"Anderson's" or "Scotch Pills"	—	—	0 6	Ergotina	1	1/6	0 10
Bi-chloride of Hydrargyrum	1	1/60	6	Benzoate of Lithina ..	1	1/6	0 8	"	5	5/6	0 10
Bi-iodide of Hydrargyrum	1	1/60	6	Bromhydrate of Quinina	5	5/6	1 3	"	10	1 2/3	0 10
Colchicina	1/2	1/120	8	" "	10	1 2/3	1 8	"	15	2 1/2	0 10
Acetate of Morphia ..	1	1/60	7	" "	15	2 1/2	2 0	Extract of Belladonna ..	1	1/6	0 7
Hydrochlorate of Morphia	1	1/60	8	" "	20	3 1/3	2 6	Amorphous Quassina ..	1	1/6	0 8
Phosphoric Acid	1	1/60	8	Bromide of Camphor ..	1	1/6	0 7	" " ..	2	1/3	0 10
Phosphuret of Zinc	1	1/60	8	" " ..	5	5/6	0 8	Santonina	2	1/3	0 7
" "	2	1/30	8	Caffeina	1	1/6	1 3	"	5	5/6	0 8
" "	4	1/15	8	Calomelas	1	1/6	0 7	Sulphate of Quinina ..	5	5/6	1 3
Picrotoxina	1	1/60	8	"	5	5/6	0 7	" " ..	10	1 2/3	1 8
Crystallised Quassina ..	1	1/60	8	Hydrochlorate of Quinina	5	5/6	1 3	" "	15	2 1/2	2 0
Extract of Strophanthus	1	1/60	10	" " "	10	1 2/3	1 8	" "	20	3 1/3	2 5
Sulphate of Strychnia ..	1	1/60	8	" " "	15	2 1/2	2 0	Sulphate of Sparteina ..	2½	5/12	0 10

The preceding list comprises only a very small portion of the Pills and Granules prepared by the Firm of L. Frère. Their complete Catalogue contains the various formulæ of the French Pharmacopœia, also the leading ones of the British Pharmacopœia, as follows:—

BRITISH PHARMACOPŒIA		Prices: Per Gross	Prices: Per lb.	Prices: Per Bottles of 50 pills
		s. d.	s. d.	d.
Aloes Barb.	P. B. gr. IV.	1 0	10 0	4
Aloes and Ferri	P. B.	1 2	10 4	5
Aloes and Myrrh.	P. B.	1 7	12 0	6
Asafœtida Co.	P. B.	1 4	10 4	5½
Calomel Co.	P. B. or "Calomel Pill" ..	1 2	10 0	5
Colocynth Co.	P. B. or "Colocynth Pill" ..	1 8	16 0	6½
Coloc. and Hyos.	P. B.	1 7	13 0	6
Ferri Iodid.	P. B. gr. III.	1 8	16 0	6½

BRITISH PHARMACOPŒIA		Prices: Per Gross	Prices: Per lb.	Prices: Per Bottles of 50 pills
		s. d.	s. d.	d.
Ferri Carb.	P. B. or "Female Pill" ..	1 0	8 0	4
Blue Pill	P. B.	1 0	10 0	4
Rhei Co.	P. B. or "Compound Rhubarb"	1 4	12 0	5½
Aperiens	or "Antibilious Pill" ..	1 0	10 0	4
Podophyllin	gr. 1/4 6,000 per lb.	1 2	20 0	5
Acid. Arsenios	gr. 1/60 " "	1 0	10 0	4
Atropia	gr. 1/60 " "	1 4	32 0	5
Digitalin	gr. 1/60 " "	1 4	28 0	5

The above are the principal pills in daily use, and those P. B. are made in strict accordance with the formulæ of the British Pharmacopœia. In proportion with the demand, other kinds will be added to our list, at equally low prices.

NOTE.—Beyond the pills and granules mentioned in our price list, we manufacture to order any kind of pill or granule of which the formula may be confided to us, with whatever inscription the client may select. These special orders cannot be undertaken for a less quantity than two kilogrammes (4 lb. 7 oz.). It is also necessary to give (**1**) the colour selected for the covering, (**2**) the inscription written very distinctly. This lettering cannot occupy more than 18 European letters. The spaces between the words count as a letter. For the Hindoo languages the number of letters may vary according to the form of type. The price for manufacturing is 18 francs (14*s.* 4*d.*) per kilogramme (2 lb. 3 oz.) of pills covered. Our customers can have the raw materials sent to us by a wholesale drug house, or we will undertake to supply them. It is hardly necessary to add that an absolute discretion is guaranteed. **The Granules** comprise the doses of active principle for $\frac{1}{10}$ milligramme, up to one centigramme exclusively. **The Pills** comprise all the other doses. Each bottle of Granules contains one hundred granules, viz.: 8 doz. ½. Each bottle of Pills contains fifty pills, viz.: 4 doz. ½.

A Complete Catalogue is forwarded Free on Application.

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Buying Agencies undertaken on the best terms. Special Rates to Wholesale Houses. References given and required. Samples and Quotations solicited.

A Purely Vegetable Digestive Ferment. **PAPAIN** (Dr. Finkler & Co.). Acts in Acid, Alkaline, and Neutral Solution.

A new and most efficient Analgesic in cases of **EXALGINE** (Brigonnet). Facial and Dental Neuralgia, Sciatica, Lumbago, &c.

The New Anti-Rheumatic and Antiseptic Remedy **SALOL** (Durand, Huguenin & Co.). For treatment of Rheumatism, Dysentery, Cholera, Ulcers, Skin Diseases &c.

All the more important Salts of **QUININE** (Milan Brand). Cinchonidine, Cinchonine, Quinidine, &c., kept in stock.

Obtainable through the Wholesale Druggists throughout Great Britain and Ireland, and of

B. KÜHN, 36 St. Mary-at-Hill, LONDON,

SOLE WHOLESALE AGENT FOR THE UNITED KINGDOM AND EXPORT.

PAMPHLETS AND PRICES ON APPLICATION.

NITROGLYCERINE TABLETS

Tabellæ Nitroglycerini, B.P. 1885 (Martindale).

By authority of the Medical Council, the compilers of the British Pharmacopœia have adopted and made OFFICIAL Nitroglycerine Tablets, as Manufactured by W. M. during the last ten years.

The Nitroglycerine is in a perfectly fixed solution in Chocolate. The Tablets are palatable, and weigh ONLY 2½ grains each. They are sold at the following prices:—

In Boxes, Retail ... ... 2s. 6d. and 4s. 6d. each.

For export to hot climates, corresponding quantities are supplied in bottles.

For Hospitals and Dispensing, in Bottles, 2 oz., 4 oz., 8 oz., and 16 oz. in each

Also **CAPSULES OF IODIDE OF ETHYL,** covered with Silk, 8 in a Box, Retail, 2s. 6d.

" " **NITRITE OF AMYL,** " " 12 " " 2s. 6d.

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Established 1843. **THOMPSON & CAPPER,** Established 1843.

WHOLESALE & EXPORT HOMŒOPATHIC CHEMISTS,

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And (late HENRY TURNER & CO.)

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ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER'S DENTIFRICE WATER.

Sells well everywhere, its beneficent qualities being attested to by physicians in all parts of the world. (*See Testimonials.*)

In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

Dr. J. COLLIS BROWNE'S
CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

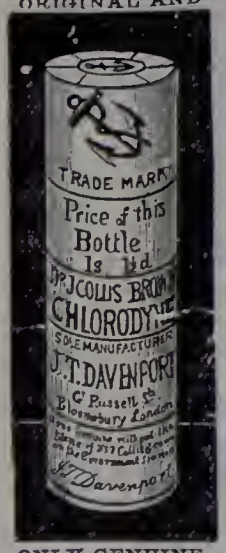
The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London
Allen, Hanbury & Co.,	"
Baiss Brothers,	"
Banks & Richards,	Birmingham
Barron, Harvey & Co.,	London
Bell, John, & Co.,	"
Bourne & Taylor,	"
Corbyn & Co.,	"
Cox & Gould,	"
Curling & Co.,	"
Curtis & Co.,	"
Davy, M'Murdo & Co.,	"
Dobbin, W., & Co., Limited	Belfast
Drew, Barron & Co.,	London
Drew, B., & Alexander,	"
Dunn & Company,	"
Edwards, W.,	"
Evans, Gadd & Co.,	Exeter
Evans, Lescher & Webb,	London
Ferris & Co.,	Bristol
Foulger, S., & Son,	London
Frazer & Green,	Glasgow
Gale & Co.,	London
Giles & Son,	Clifton
Goulding, Messrs.,	Cork
Gratton & Co.,	Belfast
Grimwade, Ridley,	London
Grindley & Son,	Chester
Hearon, Squire & Francis,	London
Hodgkinson, Tonge & Stead,	"
Hopkins & Williams,	"
Hovenden, R., & Sons,	"
Hunt & Co.,	Exeter
Hunt, A., & Co.,	"
Johnson, J. H. & S.,	Liverpool
Langton, W., & Co.,	London
Lynch & Co.,	"
Mandor, Weaver,	Wolverhampton
Marsden & Sons,	London
Maw & Son,	"
Meggeson & Co.,	"
Mackay, John, & Co.,	Edinburgh
Morson, T., & Son,	London
Newbery & Sons,	London
Oldham, G., & Co.,	Dublin
Parsons & Richardson,	Leicester
Peake, Allen & Co.,	Dublin
Raimes & Co.,	York
Raimes & Co.,	Edinburgh
Sang & Barker,	"
Sanger, J., & Sons,	London
Sim, James, & Co.,	Aberdeen
Smeeton, W.,	Leeds
Southall & Co.,	Birmingham
Sutton, W., & Co.,	London
Tomlinson, Hayward & Co.,	Lincoln
Treacher, Hodgkinson & Co.,	London
Westrup, J. B.,	Kensington
Westwood & Hopkins,	London
Woolley, James,	Manchester
Wyleys & Brown,	Coventry
Yates & Co.,	London

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy *alone* creates the great demand.

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OLIVE OIL (Cream White),

OLIVE MACHINERY OIL,

Dry Oranges, Orris Root, Juniper Berries, Honey (White), Sulphur (Sublime), Essence of Lemon, Essence of Bergamotte,

ACETIC ACID, CHEM. PURE,

CORKS OF EVERY DESCRIPTION,

LEGRAND'S IRON DRUMS.

Samples and Quotations on application.

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ARE THE BEST AND CHEAPEST.

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ALL DRUGS WARRANTED TO BE GENUINE

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THE MOST POWERFUL

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Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVES. A positive cure for IMPOTENCY. *Prompt, Safe, and Sure.*

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An Invitation

Is given to all Chemists who stock Guy's Tonic to kindly communicate the fact to the Guy's Tonic Company, 4 Ludgate Circus, London, as a Register of Local Agents is in course of preparation. This List is being compiled to enable the Secretary to send accurate replies to the inquiries constantly being made by direct postal purchasers from all parts of the country for the names of Local Agents.

Write to-day. A Post Card will do.

NOTICE!

TOWLE'S PENNYROYAL AND STEEL PILLS

Mr. E. T. TOWLE, of Dryden Street, Nottingham, Chemist and Druggist, begs to inform the Trade and the Public that he is possessed of the sole right to manufacture and sell Towle's Pennyroyal and Steel Pills, and no other person or firm is intrusted in such business.

All orders to be addressed to Mr E. T. TOWLE, or to his recognised Agents.

(Signed)
EDWD. T. TOWLE,
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CAUTION. Immediate proceedings will be taken against all person pirating the Title, Name, or Trade Mark.

1D. PILLS!! SUGAR-COATED!! 1D. PILLS!!

Medicine made pleasant for all.

The Cheapest and Best Family Medicine The most Saleable Article in the Market Composed of the purest Drugs. Will keep good in all Climates any length of time.

The following varieties are put up in Glass Tubes, on Cards of 3 doz., or in gross boxes, at one penny per tube:—

Antibilious	Hamilton
Asafœtida	Liver
Blaud	Podophyllin
Castor Oil	Quinine
Colocynth	Rhubarb
Dandelion	Tonic
Female	Vegetable, &c.

Other varieties can be had if required. Terms—8s. per Gross, cash; 6 Gross assorted, in handsome mahogany glass case for 48s. Sent free by parcel post on receipt of P. O. Order or Postage Stamps. Agents and Purchasers of large quantities get a liberal discount. *Send for Samples*

Aromatic Cachous, Chlorate of Potash Pellets and other varieties, put up as above at same price.

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Anderston Apothecaries Hall, Washington St., GLASGOW.

PURE TARTAR EMETIC.

PURE OXIDE OF ANTIMONY.

Showing 98 per cent. of anhydrous Sb_2O_3.

This product is obtained BY A NEW PROCESS, and is offered at VERY ADVANTAGEOUS PRICES.

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Grand Prize, Universal Exhibition, Paris, 1889.

DINNEFORD'S FLUID MAGNESIA

PERFECT IN PURITY AND UNIFORM IN STRENGTH

The most efficacious antacid and mild aperient for Delicate Constitutions Ladies, Children, and Infants.

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Oils of Lemon, Orange, Angelica, Aniseed, Bergamot, Cassia, Caraway, Cloves, Peppermint, Juniper, Curaçao, &c.

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Easily to digest.

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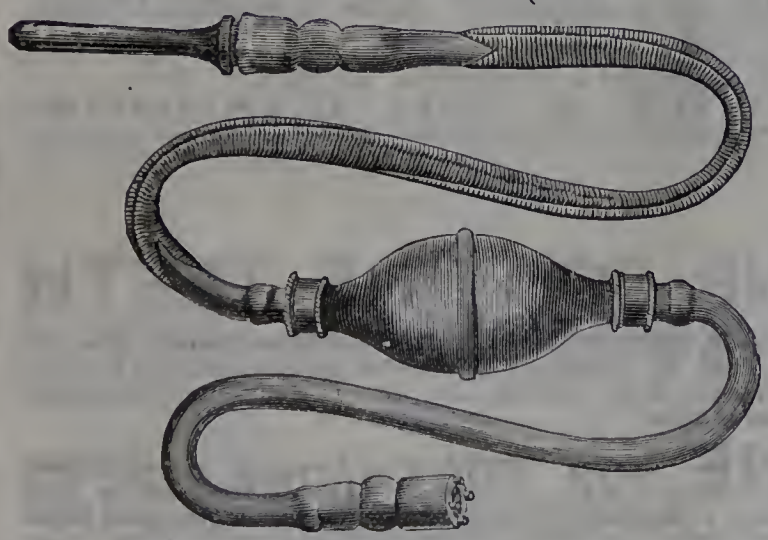

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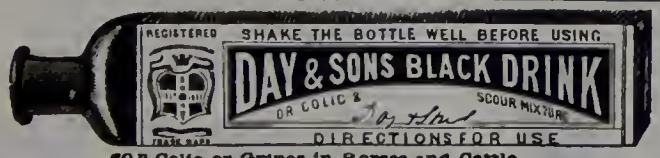

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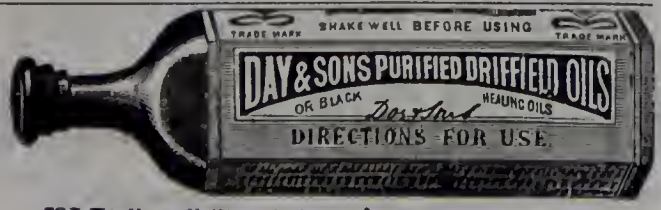

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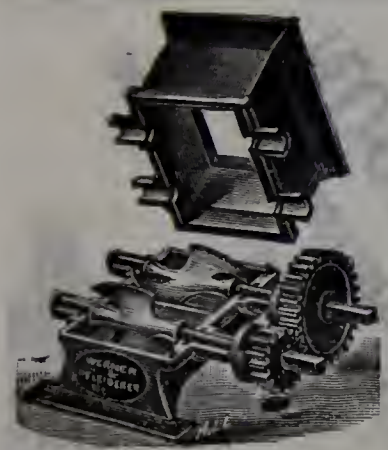

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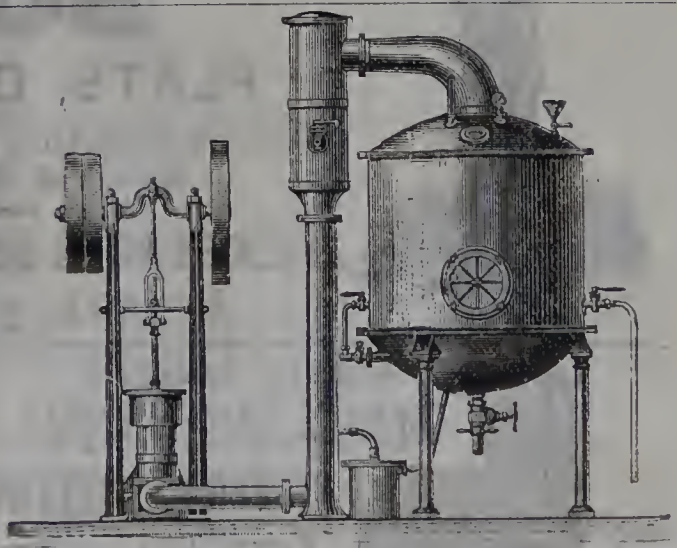

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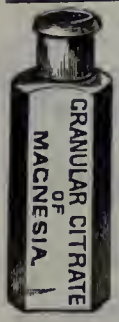

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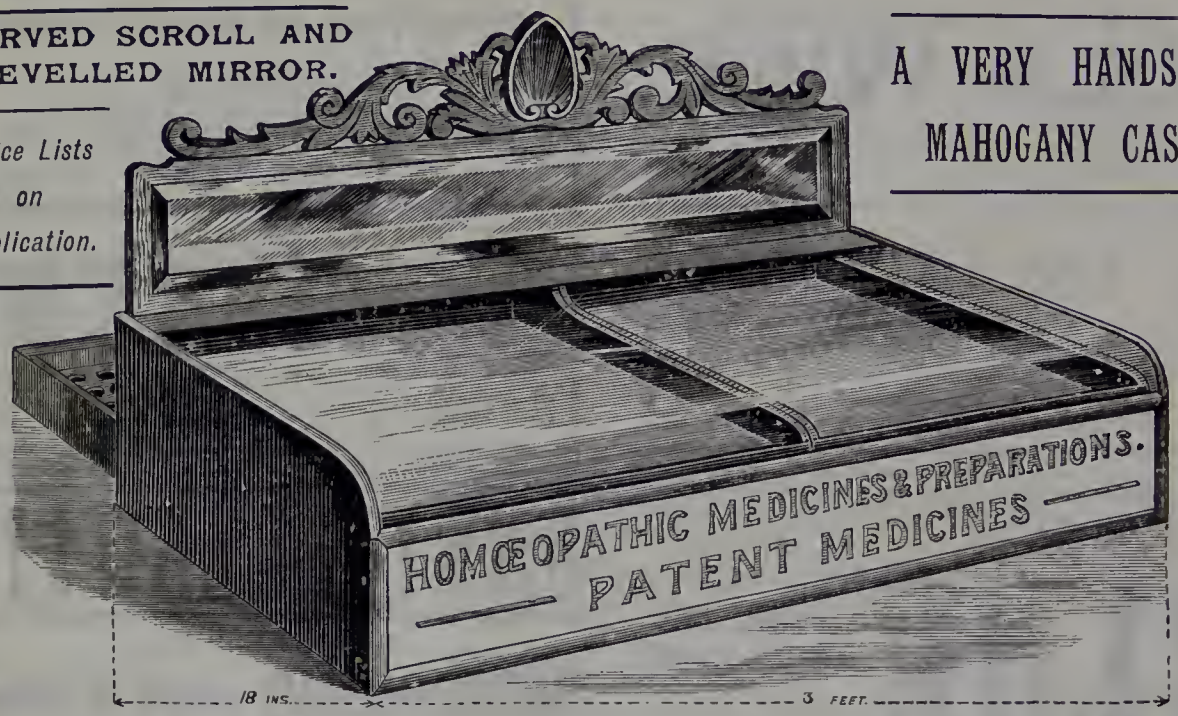

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